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# THE Madras Forest College Magazine.

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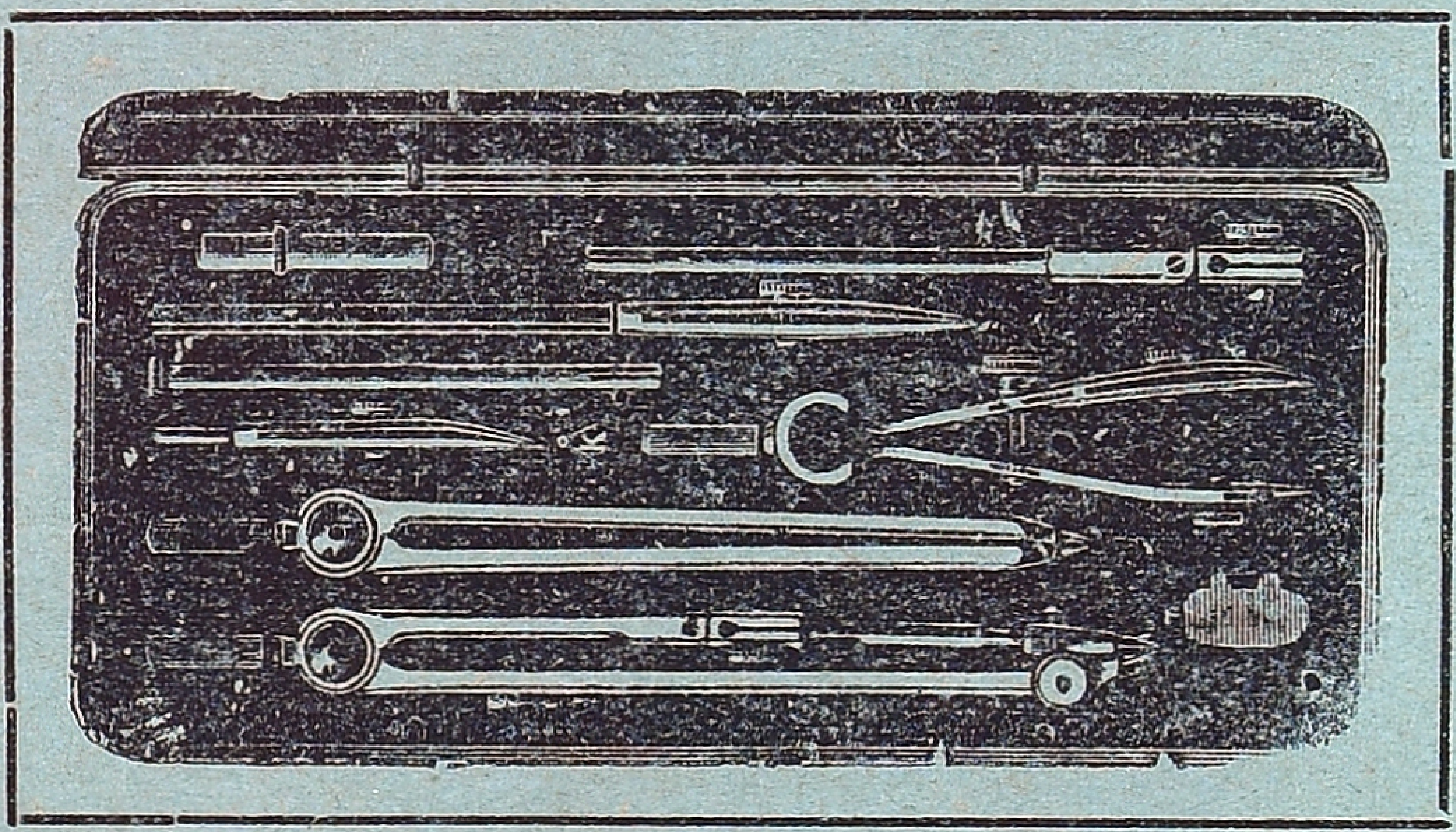

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# The Madras Forest College Magazine.

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THE
# Madras Forest College Magazine.

**Published Quarterly.**

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## Prize Day at the Madras Forest College.

On the 30th June this function was most successfully celebrated at the College, before the largest audience that has yet graced such occasions. In fact the house was full, long before the advertised hour and many had to stand or sit in the corridor outside "Gamble". It is understood that it is under contemplation to hold the gathering in future in the Gass Museum. The President of the Board of Visitors Mr. S. Cox, Chief Conservator of Forests, was supported on the platform by the members of the Board of Visitors (the four Conservators) of the Presidency, the Principal, the College staff and the Examiners.

Two students obtained Honors, 20 the Madras Ranger Higher Certificates and 6 the Madras Ranger Lower Certificates.

*The Prize Winners were*

| | | |
|---|---|---|
| Campbell-Walker Gold Medal | ... | B. S. CHENGAPPA |
| Brasier Gold Medal | ... | ABDUL HAMID |

| | |
|---|---|
| Honours | T. D. PONNIAH<br>P. SANKUNNI MENON |
| Gold Medal for the highest Senior Student | T. D. PONNIAH |
| Board of Visitors Gold Medal for the highest Junior student | G. APPA RAO |
| Lodge Gold Medal for Engineering | T. D. PONNIAH |
| Forestry Prize | T. D. PONNIAH |
| Survey Prize | P. SANKUNNI MENON |
| Range Administration Prize | T. D. PONNIAH |
| Botany Prize | C. R. REGUNATHAN |
| Indian Forester Gold Medal for Past Student | L. J. TAYLOR |
| Indian Forester Gold Medal for present student | E. S. WAMBECK |
| Pentland Challenge Shield | C. B. CHENGAPPA |
| Fischer Prize for Gymnastics | D. VENKATESWARALU |

## Madras Ranger Higher Certificates.

C. N. Narasimmachari
T. Pedda Lakshmiah Naidu
B. S. Chengappa.
E. S. Wambeck
C. L. Narayana Rao
C. R. Regunathan
A. M. Srinivasalu Naidu
P. Ramaswami Ayengar
M. Umapathi Moodaliar
N. C. Mahadevan
M. Gulab Singh
A. Joseph
Abdul Hahmed Khan
T. D. Rajabhadar
Malcolm Edwards
C. B. Chengappa
A. Seshagiri Rao
K. Purushothama Rao
B. Coates
M. Subba Rao

## Madras Ranger Lower Certificates.

Kunhiraman Menon
Behara Bagirathi
Y. Venkataswami Naidu
T. G. Seetharama Mudaliar
C. R. Thangavelu Moodaliar
T. V. Thayuman

In the course of his opening speech the Principal remarked "To-day is an historic occasion in the annals of the Forest Department of Madras, for our annual Prize giving is presided over for the first time by an Officer of our Service, the Chief Conservator, the Head of the Department. Since I entered the service nearly 28 years ago there has been no such momentous occurrence as Mr. Cox's appointment not even the starting of the Forest College 7 years ago, and it is up to all of us including you students, by loyal and devoted service to justify the step that places us on an equality with the other great Forest Provinces of India. I think Sir, you may rely with confidence on the College to serve you faithfully and to the best of its ability.

"The new era is again fortunate in its inception by the decision of His Excellency the Governor to assume the Forest Portfolio".

* * *

"Thanks to the greatly increased facilities now afforded in the Demonstration Forest, the Engineering Park (the apparatus of which has been so effectively extended by Mr. Crothers the Senior Engineering Instructor), the Arboretum, and the Sylvicultural models in the Museum, the students during Head-quarter terms spend at least 6 hours per week in Field Work *i. e.*, more than double the time previously possible. From the lecture room they are now able to go straight to the Field and apply (or at least to be tested in) the theories they are by way of having imbibed. Freehand Drawing — a valuable accomplishment for a Forest Officer — has been encouraged on tour, and I also invite your attention to the Engineering Drawings (the work of the Students) that are hung round this room. A Student's drawings at the end of his course are now bound and sent to him. They form a more or less edifying record of his progress in this branch of the College course. But a Drawing of very exceptional merit may be retained and framed as a permanent adornment to the walls of the College. This privilege is jealously accorded and I hope proportionately appreciated.

"The Students' gardens, Fuel depot, Provision Stores, Badminton Courts, and improved Tennis Courts Athletic Ground and Pavilion, are innovations since last year that tend to render a sojourn more comfortable, sociable and healthy. The Government have given a generous contribution to the Students' Club, and a considerable number of Officers and of old students have already forwarded me subscriptions. If we get an adequate response I hope to have the work started within six weeks."

* * *

"As regards the Estate we are at great expense forming an ornamental Park round the College and by increasing the roads and paths, and by extending the borders and avenues we are endeavouring to convert a wilderness or a morass (according to the season of the year) into a habitable and pleasing property. But we can make no proper progress until we are provided with an adequate water supply — my feelings on the subject do not permit me to enlarge on this painful topic."

* * *

"The Athletic side of the College has maintained its average standard and has had a fair share of success. We *ought* to have won the Final of the Stanes Hockey Cup. That we did not was due to the lamentable fact that on the day we did'nt play well enough. We undoubtedly suffer from lack of expert coaching.

"The Tennis Courts are still not very good, but there is a lot of fun to be got out of them, and I hope that with the future support of *every* member of the Staff the Tennis and Athletic Club will enter on a new epoch of prosperity".

* * *

"The Senior Division as a whole is rather below the average this year; but there are no failures and no one anywhere near failing".

* * *

"And now Students, I have one or two things to say to you. By Mr. Dawson's departure next month you are losing a very good friend and I a devoted and loyal Colleague. For five years he has given the best of his ability and energy and much of his leisure to your interest and to your welfare, and he has been responsible for many of the improvements to your comfort and condition here. I do not remember his ever having been absent from duty while I have been Principal, but I do remember that he soldom came into my room in times of more or less pressure without some scheme for your moral or material advantage. I have always tried to see his point of view and when I have not been able to accept it you may have thereby sufferred loss, but the responsibility for the disability was mine -- it was not due to Mr. Dawson's lack of eloquence on your behalf. You will, I know, join with me in wishing him good health and a happy life in his retirement You may bie sure that his thoughts in the future will be constantly with us here and with those of you who have shown yourselves responsive to his advice.

"In this matter of responsiveness to your environment of which I spoke to you last year I am glad to note a distinct improvement in the spirit of the College, as exemplified by your subscription of Rs. 5100 to the War Loan, by your efforts to work up your gardens, to write for the Magazine, to compete for the Indian Forester Prize and gererally to play up to the stimulus. Then again the excellent Gynmastic Show you put up on Saturday was an agreable revelation to many of us. But don't go away with the impression that you are arch-angels; you are far from that, although I believe that you are every one of you better fitted to become good citizens of the Empire then when you joined here; the Empire that within the last 48 hours has imposed the terms of a victorious peace on its unscrupulous foe. And yet what I dread most is that after you have left the College you may become a prey to your surroundings and may forget the one lesson that we have tried to teach you here-i. e. to do your bit. It is not doing your bit when I am told by a Conservator or a District Forest Officer that such and such a man states that he cannot carry out a certain irksome job because he was never taught it at the College, when we here *know* that he was actually practised in that very task or in its own twin brother. It is not doing your bit to fail in Range Charge, or to spoil a fine Engineering project from the College by bad executions or because you happen at the College to have been trained into a good Athlete to neglect your professional duties for recreations. If it had not been for the defection and culpable laxity of a Past Student, who had a distinguished career here, we would by now have had the Students' Club nearly finished. It is just this subsequent failure of some of our most brilliant students that fails me with poignant regret and makes me very chary in recommending Honours or Certificates in doubtful cases.

"We learn most from our own failures, and although the man that never makes mistakes never makes anything, that is no reason for making the same mistake twice.

"To their discredit there are three students in the College who are still unable to swim. One of them is a Junior. I hope the House Committee during the next touring season will complete his education in that accomplishment.

"On the whole the College reputation for endeavour is I am glad to say high and rising higher. It was very gratifying to receive not long ago an enquiry from the Inspector General of Forests as to whether we could supply two men for the Andaman Forest Department at a high salary. Unfortunately at present we have no private students, the only category available for such appointment—but the request was none the less pleasant hearing. Although it is not a very fashionable word just now I am proud to think that Efficiency (with a capital E) is still our ideal—and perhaps we may define Efficiency as the practice of doing to-day what we could much rather put off till to-morrow,—or the meeting of difficulties with Square Shoulders as one of you put it the other night at your very cheering entertainment which some of us had the privilege of attending.

"Students, the College does a good deal for you and I would ask you to do something for the College. You probably have very little idea of the amount of solid work Mr. Crothers as House Tutor has put in with the object of ensuring your comfort and welfare. With less efficient supervision I should be sorry to think of what his agents would make of your roads, your hotels and kitchens. To give some return after you have left the College will not be very difficult. Send us contributions in kind for the Museum; remember that the Students' Club can only be built by cash and not by promises; write for the Magazine, and those of you who are Range Officers in the College Camps do your best to make us comfortable. Never forget the dignity of manual labour; you ought to know something about it by this time. Try and carry on the excellent system of Ryots' Conferences initiated by Mr. Dawson. You will in future be the *liaison* officers between the the Forests and the people—and it is by propaganda work that you can best serve your Commander-in-Chief and his Head quarters Staff. Above all remember that the name of the College rests with you and that your good work must be the basis of its reputation. I need hardly say how glad we shall always be to welcome you here. We are delighted to see the faces of so many old students to-day. It is perhaps primarily for the past students that we propose to give every year the Garden Party, from which this long sermon is detaining you. But I have had 28 years of making mistakes and I want to help you to avoid them as far as possible."

"Students I wish you God Speed."

The president then made the following interesting speech:

MR. COWLEY-BROWN, LADIES AND GENTLEMEN

It is a great regret to all of us that His Excellency the Governor is unable to be present to-day as he would have been had it not been for the Bellary tour. However it is but a pleasure deferred and Lord Willingdon will not only be here for the College Athletic Meeting in September but I hope will spend two or three days at the College and see the Students at their work. We will look forward to giving him a very hearty welcome.

"Turning now to Mr. Cowley-Brown's report I have to congratulate him once more on behalf of the Board of Visitors on his most capable and sympathetic management of the College. His enthusiasm is infectious and the Board is glad to see how well it is reflected in the general smartness and keenness of the students.

"I may add that the Board is specially impressed with the very great improvements that have been made to the Forest Estate. Much of the work has been done by the students themselves and a great deal of credit is due to the present Estate Overseer Mr. Ramaswamy.

"There are still urgent wants. The question of the water supply is a very serious one and must be tackled at once. Mr. Hart has very kindly met the Board of Visitors and the Principal during the past week and discussed the whole subject. As a result I think we can reasonably expect to have an efficient scheme of supply sanctioned by Government and put into operation within the next two or three months. Then we badly want a Students' Club and I echo all the Principal has said in his appeal for subscriptions. I should also like to see a Pavilion more worthy of the College. And the Tennis Courts require sheltering from the gentle breezes of Coimbatore such as we are now experiencing. Play on a day like this is rendered impossible unless some protection is provided.

"In the matter of Educational Standard, the Board of Visitors is of opinion that the College is at present somewhat below the average; but on the other hand the Principal has been able to certify that he has never had a body of Students under him which has exhibited so much keennees to learn or been admirably steady and disciplined in their conduct. That is a fact on which the Board desires to congratulate the whole College, and it considers that Mr. Crothers has been in this matter of valued support and assistance to the Principal.

"With regard to "Athletics" there have been successes and failures; the College teams are handicapped by their long absences on tour. I should like to see the College win all its games. Perhaps you may think this an impossible ideal, but with Mr. Cornwell to coach you I hope you may go very near it next year.

"Mr. Cowley-Brown has not I think referred in his report, which of course deals with the past year, to a matter of considerable future interest to the College. By arrangement with the Government of India and with Provincial Governments, we are going to train in future considerable numbers of Government students from Bombay, Central Provinces Bihar and Orissa.

"It is our business to return these students not only well qualified for their future careers and a credit to the training at this College—that is a matter chiefly for the staff; but also to send them back with the pleasantest recollections of their life at this College—that is a matter chiefly in the hands of you, students.

I hope you will extend to those men your hospitality and good will and thereby increase the prestige and reputation of your own College throughout India.

"I think some of those present will desire to hear some details of a subject, which must often have been in your minds-i. e. the Reorganisation of the Subordinate Forest Service. The matter stands like this. Government have sanctioned the scheme to take effect during the current financial year and has allotted one lakh of Rupees for that purpose. The total cost of the scheme is of course considerably more, but for want of trained men it is not possible to introduce the whole scheme at once. The Conservators and I have been working at the details for some time past—it is a complicated business—but we hope that by the 1st of October the scheme may be in force. Practically the whole of this year's allotment will go to the increase of pay of those now serving and I trust that will meet with your approval. All of us are delighted that the long promised improvement in the pay and prospects of the subordinate service has come at last.

"And now I should like to turn for a minute to more general subjects. Mr. Cowley-Brown has referred to the fact that for the first time in the History of the Madras Forest Department there is a Forest Officer at its head and has assured me, as that Officer of the cordial support of the College. Knowing Mr. Cowley-Brown as I have done for many years, I have never been in a moment's doubt of such support, but I am not the less grateful for the assurance. But in the few remarks which follow I want to take an entirely impersonal standpoint.

"The appointment of the Chief Conservator is the last step in a reform which has been in progress for a long time; whereby the technical management of this vast property of 20000 square miles of forest has gradually passed out of the hands of the Civil Service into that of the Forest Service.

"Previous steps have been, as most of you know, an alteration in the relations of the Collector and the District Forest Officer and a considerable increase in the latter's authority. The Conservators' powers have also been considerably increased and may, I hope, be further increased in the future. But the reform goes a good way further back than that. I remember that when I and some of those present to-day first came out to India, the position of the District Forest Officer was little better so far as the authority of his Office was concerned than a Head Clerk. He was undoubtedly viewed with great suspicion by Government. The Conservator then was merely an advising Officer whose advice was as often ignored as accepted. That is all ancient history and I only mention it to shew how far we have since progressed.

"With this latest development I think we may say that the Madras Forest Department now stands on its own legs and I think it is a position on which we may legitimately congratulate ourselves. It shows at least that we have acquired the confidence of Government.

"But it is also a position which has its own reponsibilities and its own risks and I regret to have to say that we have still to acquire the confidence of the public.

"The position of the Department in relation to the ordinary village always seems to me to be much that of a school master to a school boy. The master imposes on the boy a number of rules and regulations which he intensely dislikes, and when doing so he tells the boy not only that it is for its good but that he will be very grateful for it when he reaches years of discretion. The boy does not believe a word of it; nor does the villager; and that is where our difficulty lies. The difficulty is moreover enhanced by the very long period which the villager will take to reach that of understanding maturity which I spoke of. It is a matter of time and patience and a great deal of both.

"But with educated classes the position ought to be quite different, but there we are up against the fact that we are very much out of touch with them. The educated classes either view the Department with indifference in dealing with so remote an interest as Forestry or when we do come into contact with them they are inclined to regard our motives with some suspicion.

"Want of sympathy for the poorer classes and a greed for revenue are often urged against us.

"Well, I do not propose to argue the points or to attempt a defence of the Department on this occasion; what I am interested in and wish strongly to emphasise is the necessity of making our achievements and aims better understood and removing some of the suspicion which clings to our motives. No doubt this is a difficult business but opportunities will occur if we look for them.

"Take the case of Working Plans. I see no reason why, when we are preparing Working Plans and especially those which deal with the supply of small timber and fuel or with grazing, why we should not call into council the educated opinion of the locality. We would place all the facts we have at their disposal, lay all we can do on the table, explain the difficulties and invite suggestion. No doubt we should not always get agreement; but we may get understanding and it is on understanding that confidence is acquired.

"I mentioned Working Plans and Mr. Cowley-Brown has referred to the admirable system of informal discussion with the local people introduced by Mr. Dawson into the camp routine of the students.

"Other opportunities I am sure can also be found if we look for them.

"It must be remembered in these democratic days that it is not sufficient to know that one is in the right—one has to convince the other man of the fact.

"So much for one of our responsibilities; now for one of the risks. The risk I am most anxious to remove is one referred to by Mr. Couchman at last year prize giving, the risk that under the new constitution the Forest Department may become self-centered, may try and plough a lonely furrow and may lose touch with the general District Administration.

"That I think would be one of the greatest misfortunes that could happen. We must remember that we are only a part of the great machine of Government and must harmonise our movements with the rest of the machinery.

"Besides looking back on the past and especially the last ten years during which the Department has made great progress, I think one must be blind and ungrateful not to realise how much of our success has been due to the Civil Service and especially to Collectors by whose sympathy and co-operation we have turned many awkward corners.

"I am very glad to have the opportunity as head of the Department and a Forest Officer of acknowledging our indebtedness to the Civil Service and I know that I voice the general feeling of the whole service. Their co-operation in the future is more necessary to us than in the past and we must do all we can to retain it.

"Some of you know the special paragraph in the District Forest Annual Administration Reports entitled "Relations of Forest Officers with Revenue Officials"-or words to that effect. For many years past the only remarks I remember are "Satisfactory", or "Cordial" or "very cordial". Unless Government bored with the constant reiteration decides to cut the paragraph out of future reports, I hope we may not in our time break this record for monotony.

"One more word before I sit down. When the College meets again in August the familiar face of Mr. Dawson will be absent, as Mr. Cowley-Brown has informed you. I want on behalf of this large meeting of Forest Officers of all ranks to assure him of our very best wishes and hopes that he may long live to enjoy his retirement from active service.

"And now I think Mr. Principal, we may turn to the really important business of this meeting,—the Prize Giving."

On the conclusion of the Chief Conservator's speech the Principal requested Mrs. Cox to honour the College by presenting the Prizes to the successful students.

The company then proceeded to the Ornamental Park that is being formed round the College and to the strains of the Band of the Malabar Rifles partook of the hospitality of the Board of Visitors and the College Staff. A feature of the afternoon was a ceremonial dance by the Coorg students. Old students Messrs L. J. Taylor, Swami Kutti A. B. Fenn were present and the evening was devoted to happy informal reunions and social gatherings till far into the night.

## The Variety Entertainment.

The students of the Madras Forest College gave a variety entertainment in honour of the Chief Conservator, The Principal and the Board of Visitors on June 26th night. The Chief Conservator, Mr. Cox, the Principal and Mrs. Cowley-Brown, Mr. Macqueen, the Board of Visitors, Mr. and Mrs. Wimbush, Mrs. Crothers, Mr. and Mrs. Holmes, Mr. Sathe Mr. Marshall, Mr. Venkataramana Ayyar and the Instructors were among the audience.

The entertainment consisted of two parts with 10 minutes interval between them. The first part began with a telugu song by student Subba Rao and was followed by "Transformations of Jack" by student A. Seshagiri Rao. The third number was a Coorg song by student M.B. Subbiah in the Coorg costume, and was followed by numerous recitations. "Hope of theory hopelessly ended" composed by student A Seshagiri Rao, the last event of the first part, was a comic play in one act called "Shararat" written by student A. Rahiman. Student M. Umapathi Mudaliar personated the fat chetty quite fittingly both in person and in action. A. Rahiman acted the part of Shararat and Seshagiri Rao the part of Najit Khan and dear friend of the Chetty. The mischievous boy Shararat is brought as a servant by Najit Khan to the Chetty who engages him. The boy sticks to the very words of Najit Khan to feed his mischievous tendency and keeps on with his humour till he was able to carry away some money from the cash box of the Chetty.

After ten minutes interval the second part opened with the "Hidden sword" a monologue acted by A. Seshagiri Rao. The hidden sword is the hidden money of a miser who called himself a patriot without giving a penny for the war. Two doctors devise a plan to make use of the sword by falsely poisoning the miser. They succeed in their desire and keep the sword bright by using it.

The next item was the wonderful power of a Logician who could prove anything and everything in the person of student A. Joseph.

The last number of the second part was the "Lights on" a sketch of the life of a student in the Madras Forest College written by A. Seshagiri Rao under the inspiration and suggestion of the House Tutor Mr. Crothers who finally shaped and completed the sketch. The play is in one act and it consisted only of 2 characters, a junior student and a senior student, the former being personated by A. Seshagiri Rao and the latter by M. Umapathi Mudaliar.

The snmmary of the play is as follows: The junior student on the first day of his College course finds himself mystified at the number and size of books to be read, rules to be promptly followed and the "lights out" at 10 p. m. He acts like a baby that had just come out into the world and he has to be taught every thing by the well experienced senior student, even the proper wearing of the College uniform. He becomes hopelessly confused as soon as he hears the bugle. Being unable to regulate his daily duties he was surprised to find that the bugle sounded ' light out' when he calls his servant Raman for dinner. He foolishly lays utmost importance on the telegram requiring his presence on the occasion of his grand mother's cousin sister's marriage and applies for leave in spite of the sound advice of the senior student to act otherwise.

The arrival of the milk cart being late he becomes restless and the senior student pacifies him by directing his attention to the 9-25 a. m. interval when he can have his coffee.

He feels himself very much disgusted when the Principal refuses to give him leave and tells him that he must take life much more seriously, his work should have his undivided attention and it is nonsense to expect to be permitted to be away 6 days to witness the marrriage of his grandmother's cousin's sister.

The senior student advises him to have a spin on the cycle to clear his mind and to dispel the miserable feeling. Accordingly Venkata Rao the junior student goes out for a cycle ride. While going down a declivity at a light velocity his cycle bumps against a stone and he loses his equilibrium and falls upon a macadamised road. The Senior student tells him that he would not have lost his centre of gravity if he has developed the forest eye which means the quickness of observation.

Venkata Rao with determination keeps his light burning after the bugle has sounded for "lights out" and begins to read. Hearing the footsteps of the House Tutor he blows out the light jumps into the bed and snores loudly. He is caught by the House Tutor who reports the matter to the Principal. Venkata Rao learns from the Senior Student Kodanda Rao that there is no excuse in the Forest College and that the House Tutor is doing him good by reporting the matter to the Principal. Venkata Rao is fined 8 conduct marks for keepinig the light after "lights out" and wakes up as if from a deep sleep when the senior student warns him that two years later these marks might be the descending factors between all honours and higher standard certificates. He then finds out the secret of 'Lights out' is to regulate his daily duties and feels himself quite happy as a result from consciousness of duty promptly discharged. He keeps himself going well enough to top the class and secures an Honours Certificate. He realises the importance of discipline and training of mind which leads to the end, efficiency, a state compounded of all the elements so properly and correctly mixed together as to make the nature stand itself and say to all the world that efficiency makes a man a man. He honestly hopes that every night he will be able to sound his own "lights out."

The Chief Conservator and the Board of Visitors expressed their appreciation of the Variety entertainment, with a special stress of satisfaction on the development of the last scene 'Lights out.'

Students Seshagiri Rao, Umapathi, Abdul Rahiman and Joseph showed that they possessed histrionic talent of no mean order. The evening was thoroughly enjoyed and showed quite a new light on the capacity of several students besides those mentioned above.

We append the programme.

# Programme.

Variety Entertainment by the Madras Forest College Students.

| | | |
|---|---|---|
| 1. | Song (*Telugu*), ... | M. Subba Rao. |
| 2. | Transformation of Jack (*Impersonation*) ... | A. Seshagiri Rao. |
| 3. | Song (*Coorg*), ... | M. B. Subbiah. |
| 4. | Fencing and Club Swinging ... | Krishna Rao. |
| 5. | Hopes of Theory hopelessly ended (*Recitation*) ... | C. L. Narayan Rao. |
| 6. | Shararuth. Side spitting Force :— | |

| | | | |
|---|---|---|---|
| 1. | Callitela Chetty | A wealthy merchant | M. Umapathi. |
| 2. | Shararuth | A servant boy | Abdul Rahiman |
| 3. | Nazeath Khan | A friend ot the Chetty | Seshagiri Rao. |
| 4. | An illiterate man | | Narayana Rao. |
| 5. | Mr. Crack | A friend of Shararuth slightly demeated | Muliyil. |

Clerks, Peons &c ,

**INTERVAL 10 MINUTES.**

| | | |
|---|---|---|
| 1. | The Hidden Sword (*Monologue*) | A Seshagiri Rao. |
| 2. | The Logician (*Dialogue*) | A. Joseph and Umapathi |
| 3. | The Magic seat. | |
| 4. | Lights out. (*A sketch of life at the Madras Forest College*). | |

| | | Time. |
|---|---|---|
| ACT I. | A room in the Hostel | 1—30 p. m. |
| ACT II. | Scene the same | 3—45 p. m. |
| ACT III. | ... | 9—40 p. m. |
| ACT IV. | ... | 6—50 p. m. |
| ACT V. | ... | 8 p. m. |
| ACT VI. | ... | 2—30 p. m. |
| ACT VII. | ... | 6 p. m. |

Final Scenes, Time 8 p. m.

# * "Forest Guards, their Recruitment and control; Corruption of Lower Forest Subordinates, and how to prevent it."

The contemplated re-organisation of the lower subordinate staff of the Forest department by Government, ought, if followed upon proper lines, to go a long way, towards dispelling, the bad impression of the department, that exists in the minds of the Public.

That this impression has been created, chiefly through the depradations of our Forest Guards it is not difficult to understand, and the sooner the cause of it is removed, the better for the department in general.

"Give a dog a bad name and you might as well hang him". Well the Forest Guards of this Presidency have earned the bad name, and as we cannot very well hang them, we might resort to the more gentle expedient of gradually getting rid of them, at any rate, of the undesirables, for I must admit that there are exceptions, though they form a very small minority.

Under the re-organised scheme, the Forest Guard will apparently be started on a salary of Rupees twelve per mensem, with prospects of rising to the appointment of a *Deputy Ranger*. The mere raising of the scale of pay, will certainly have no material effect on the moral of the Forest Guard, if the present type of men are kept on, They belong to a class, which think nothing of corruption and in the majority of cases, their chief aim in joining the department, is to make as much money as possible, before they either leave or are sent out, and as I have said before, the only way to remedy this, is, when the scheme comes into force, to gradually get rid of this type of men.

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[* Indian Forester Prize essay by past student Mr. L. J. Taylor, the winner.]

Where then are we going to get our recruits from? comes the question.

Well in indicating the lines on which I think we ought to move, I shall endeavour to frame an answer to that question.

A salary of Rupees twelve a month, is certainly not much, but the prospect of rising up to Rupees forty, is I fancy, a sufficient inducement, to attract, a fairly respectable class of people to accept it.

Youths with a school final qualification jump at the chance of a clerk's appointment on Rupees fifteen or twenty, which is usually a life of drudgery, with little or no prospects before them, and I am sure that this same type of youth will readily join up as a Forest Guard on Rupees twelve, if only the Forest Department took adequate steps to advertise the prospects of the appointment in a proper manner. If the Forest Department does this, and succeeds in securing its recruits, it has then got to see that it keeps 'its' part of the bargain in view, namely, the prospects of the men- To ensure this, direct appointments of Deputy Rangers and Foresters should cease, or at any rate be reduced to a minimum, and if any vacancies occur, they should be given to the deserving Foresters and Forest Guards respectively. By indiscriminate direct appointments, the Forest Department, will not only fail in its part of the contract but will also cause dissention amongst the men and block grade to grade promotions.

Having now settled on the recruitment of our Forest Guard, the question arises, how to control him?

As his direct superior this work devolves solely on the Range Officer. With the limited powers assigned to him, the work of control calls for a great deal of tact, and more so of patience to be effective, and it is only by thoroughly organising, either personally or through an implicit obedience of his orders, all works in charge of or connected with the Forest Guard, that a Range Officer can hope to exercise any sort of control over his men.

It is a pity that, apart from charge-sheeting and submitting with his remarks the charge-sheet to the District Forest Officer, for orders, the Range Officer has no further power over his Forest Guard. This may seem a trivial matter, but it is surprising what the moral effect on a man is, who knows that his superior can make or break him. As it is, he knows that apart from charge-sheeting him, the Range Officer can take no further action, and he trusts to luck, that the District Forest Officer, who seldom has a very intimate knowledge of the actual state of affairs, will take a lenint view of his case. To return to the point however, the first essential to properly control yoru Forest Guard is to provide him with a map of his beat. This should show in detail, all the areas, fuel, timber, bamboos etc, which are in his charge. The limits of each individual working circle should be marked off in different coloured inks on the plan, and personally pointed out to the Forest Guard on the ground, by the Range Officer. This will make him realise his responsibility, and prevent his pleading ignorance, for any irregularities which may be noticed later on.

At the begining of each month, a definite programme of work, should be assigned to each Forest Guard, and he should be directed to submit with each week's diary, a statement in tabular form showing the progress made in each work, during the week. This is one of the surest ways of controlling and exercising, any sort of check over his work. Periodical inspections, of the records, stores and other Government articles in his charge, is also an essential to proper control, and will result, not only in the Range Officer gaining a more intimate knowledge of the Forest Guard and his work, but will also train the Forest Guard to be methodical and systematic in his habtis.

Though it is possible for a Range afficer to effect a proper control of his Forest Guard in his work, it is quite a different matter when it comes to the question of controlling his morals.

That Corruption is synonymous with the Forest department, when applied to the lower subordinates of the service, is an undisputed truth and in view of the fact that the pay they draw is hardly sufficient to keep them in food for the month, it is hardly surprising. Their mode of corruption assumes various forms, the most characteristic of which are bribery, and the swindling of Government money. That the Department is in some measure to blame for this, there is no manner of doubt, and as long as it maintains it policy of deriving as much Revenue as possible from its Forests, with the least possible expenditure, it will I am afraid be futile to attempt to solve the problem as to how to prevent corruption.

There is not in my experience a single department, where the work is of as strenuous and taxing a nature as in the Forest Department and it is only in fairness to its members, that they should be as well, if not better paid, than the corresponding grade of men of the other departments, This however is not the case. The Department would lose nothing by sanctioning an all round increase of pay to its subordinates, and the system of rewards for all cases detected, as at present in vogue in the salt and Abkari Department, would be a splendid incentive for the Subordinates to report all bona-fide cases, instead of receiving a bribe and hushing them up, as I am sure is at present being done.

The swindling of Government money is in great part due to the low sanctions accorded for all Forest works. Compared with the rates sanctioned in other departments the Forest rates are surprisingly low and unless this is immediately remedied, the subordinates will have no go, but to false their accounts. They know that they cannot pay all the labour they get, at full rates, and so they don't pay at all, and compensate the coolies from our Forests. This evil can be mitigated by the Range officer making payments himself as for as possible, but '*Entre nous*,' I fancy the Range officer knows how the land lies, and lets well abone. In any case it is practically impossible to do this in a heavy Range.

What there is wanted is a more generous return by the department for the Revenue it derives from its Forests, not only to the forests by providing more adequate sanctions for work of improvement in them, but also to its staff, who toil to bring about these improvements.

" Fide et Labore."

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## * "In its Forests lies the heart of a Nation and a people without Forests is very close to extinction.

———o———

The world today is wiser than what it was yesterday and yet we do meet so many of our fellows who are less acquainted if not thorougly ignorant of the importance of the existence of Forests which supply their own needs and the requirements of people and a nation. Timber, fuel and such other Forest products are utilized by them freely and without consideration. They see acres on acres of naturally stocked Forests and they meet their requirements without difficulty. They hardly understand that those forests will deteriorate and that they will cease to be Forests any more. They fell and hack, use and waste until time comes when in the light of realisation of their thoughtless folly, it becomes too late to mend ; our Forests therefore should be looked after and in this essay it shall be my endeavour to briefly and within the limited number of words explain those nineteen weighty words which from the subject of this essay.

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* Indian Forester Prize essay by present student, E. S. Wambeck, the winner.

A nation we know has its two sides, peace & war. By peace I mean, the tranquil state of a nation, having industry, commerce, increase and plenty on one side & consumption & waste of vast & varied resources on the other. These few years had our minds occupied with stories of the great war & we have seen to our great realisation that victory was with the army whose country had the greatest iron mines, the largest areas of waving grain and an abundance of wood. Of all the products of the soil upon which the very life of a nation depends in times of war, wood is the only one that cannot be rapidly increased under necsssity and by the employment of adequate labour. Therefore provision for adequate national defence necessitates the maintinance of vast resourcse of timber throughout the nation, resources from which billions of feet can be drawn in a single year to meet the various demands of a nation, its army and its navy.

A sane and conservative development of Forest resources to meet the needs of a nation in times of peace necessitates a constantly increasing intensity of management of all absolute Forest land and the building up and maintenance of an enormous Forest Capital. It is good to remember that this Forest Capital can be drawn upon in times of war and may determine the fate of the nation. A Forest Capital far beyond that of former days, will not only add to her economic development in times of peace, but be developed and maintained to better insure her against vital needs in times of possible future strife.

The success of a nation will depend on the economic development of her non-agricultural lands for the production of timber. Without timber in abundance, a nation would be to-day like a giant without arms. I beg you to remember that scarcely an article of commerce is produced or brought to its point of utilisation without the use of wood in some process of its production, manufacture or transportation. We have already learnt that there is no other natural resource that has anything like so wide spread an influence as the Forest, that so intimately touches the daily life of so many persons in so many ways ; and now we have learnt in this great world war that the nation having within its boundaries Forests adequate to supply the excessive demands of war, without completely jeopardizing the needs that must necessarily arise during the period of reconstruction after the war clouds drift away is not only stronger in war, but necessarily must be stronger in the up-building of the nation.

This great world war has shown us more clearly than here-to-fore the great importance of Forest conservation. It is giving us a new light, it is showing us the great need of the Forest in national defence. In time our virgin Forests with their vast resources will disappear. With their disappearance are we to lose this important asset in times of peace and indispensable asset in times of war or are we to keep our vast Forest property intact by protecting it ever by organising our absolute Forest land for successive crops of timber as our virgin lands disappear ?

Forestry is defined in its expression. It is what the public wills it to be. Its movement forward into what it ought to be in order to best serve the public both in times of peace or times of war, is attained by all of us thinking about the right thing to do with our forests until we want to do the right thing. Then if we do the right thing long enough it is a perfectly natural consequence that good forestry becomes the gift of each generation to succeeding ones. In this gift & the proper handling of it depends the wealth of a peace-loving nation. Peace promotes prosperity; & how is this to be attained unless the people want to work for it? Forests give rise to many industries in the point of utilizing its varied products. Its transporation in & out of a country sets up commerce. This is not all in all the outcome of a Forest conservance and without Forests roads will be washed away, and rivers dried up; hence reduced transport; there are many more benefits derivable from it on the proper exercise of Forestry.

As it stands the forest Capital of all Europe will however be enormously cut into now that the fighting is over and the not over-abundant forest resources of the rest of the world will be required to rebuild Europe. These lessons of the great war that so clearly show the necessity of Forests for the existence of national life should be taken to heart by the people of every or any nation, more so by those of India and her neighbours. A nation would hardly be cognisant of the importance of the existence and maintainance of vast forest lands unless the people took to heart the great necessity of such reserves; for it goes without saying that a people make a nation.

Now shall I show how that the existence and resources of a Forest go to make or mar the progress of a people. Let us first consider an individual self, man. How does a Forest directly affect him? Certainly by all the utilizable major produce or wood extracted from it, such as firewood for domestic purposes, building timber to protect him from the ravages of the elements of the sky and transport vehicles for carriage either by land or water. These besides multifarious other uses to which wood is put in some form or other, are as essential to man as the air he breathes; all produce other than timber and fuel is known as minor Forest produce, and it will easily be understood that the term comprises a great variety of articles such as barks, seeds, leaves, fruits grass, canes, honey, wax etc and their bye-products Several of these materials play an important part in small farming especially in poor countries, while others furnish the raw material for extensive industries. Thus Forests form objects of industry which necessarily involve capital, labour etc. the special qualities of timber therefore that render it all important in daily life may perhaps be best understood if we consider the demands made on wood in the living tree which is exposed to various vicissitudes during its prolonged existence: when disintegrated it yields fibres that provide paper and cordage, while as a chemical complex wood is a fuel, and a source of substances as diverse as charcoal, alcohol, acetone, Formalin, artificial silk, turpentine, dyes, scents, tars, acids and drugs new uses for wood are constantly being discovered and old uses being increased, so that with the advance of civilization the consumption for timber per head of population steadily rises, despite its replacement for certain purposes by other materials such as iron and ferro-concrete. Hence here and in the whole of the British Empire we know that there will be an ever widening demand for timber.

We now recognise the direct use of a Forest on individual life the indirect effects of a forest though perhaps un-noticeable yet render life easy, bright and worth living. The forests with their more or less physical properties modify the humidity of the air and the temparature of the soil and regulate precipitation and evaporation. The protection against air currents and of the soil, the feeding and maintenance of springs and rivers form the mechanical effects of forest. Its hygenic and aesthetic effects are further beneficial to man. Each of these various advantages derived from the existence of forests, especially those directly concerned, we have had practical experience of some time during our daily life. The indirect effects though inconcievable to the villager is more the less important; water for instance as we all know is an indispensable element in every branch of life. It is essential for the life sustenance of a people and every individual. It gives power to drive machinery where other means of working is difficult and expensive to procure. Irrigation and agricultural pursuits are rendered impossible without it. This all important factor, water, should therefore be preserved and its supply maintained; and this rests wholly with the Forests of a country to do it. How? To be clear let me here explain what a forest soil is. Unlike bare and agricultural lands the soil in a forest is invariably covered with a thick matting of humus, litter and other decomposed vegetable matter. On a shower of rain this acts just like a blotting paper or a sponge. It sucks up all the water, retains it, and gradually gives it up through percolation towards the feeding of springs, rivers and other perenniel streams. This is how a continued and sustained maintenance of water supply is obtained. To wander away from the point for a minute, let us suppose that all the hill tops of a country were cleared of vegetation. What happens? the rain falls, the water rushes down into streams or rivers and is deposited in the sea, very often causing erosion, landslips and such other damages which may be fatal to villages or towns lying in the plains and their neighbourhood. There is very little percolation and the country suffers with a scarcity of water; crops fail, and famine comes in with all its horrors. The fact that a forest holds such responsibility with regard to the water supply to the springs in it was forgotten. Lands were cleared for plantations of different kinds and consequently the springs in them dried up and the climate became severe. Preventative measures against calamities of the like, were taken up by some governments as also by private land owners. Ceylon to day has a reservation of ½ to 2 chains of forest cover on either bank of a river stream or spring according to its size. The result of such reservation as against the old system of clearfelling has opened the eyes of the ignorant villager and he is now careful of the treatment of any springs or rivers found in his land.

Forest lands over an elevation of 4000′ are also possibly reserved to induce precipitation. Forests also provide shelter for game.

We now clearly understand how that the non-existence of Forests would vitally affect man in his life career; & should we say that Forests are essential to a people, a people without Forest are very close to extinction? If in its people lies the wealth & fortitude of a nation, surely in its Forests should lie also the heart of a nation; then should our slogan be 'make the land productive' this slogan should sing from every heart & every organisation that is striving for the betterment of man the individual, a people the part & the nation.

'NIL DESPARANDUM,
LABOR OMNIA VINCIT.'

## A defoliator.

As one would imagine from a cursory inspection of the Madras Forest College estate, the black cotton soil is not the monopoly of Acacia arabica alone. Of the numerous species of plants, Ailanthus excelsa is one, found, dotted about in the estate; it is impossible to go wrong in the identification of this plant, if it is borne in mind that it has a grey bark, with numerous similarly coloured scars, the result of the shedding of its huge leaves with a pulvinate base. The leaf is pinnately compound and the main rachis is about 3-4 ft. long with 12-14 pairs of leaflets 2″—2½″ × 4″—5.″

In February a certain larva was seen feeding or these leaves and in the month of March these had disappeared, leaving the plants almost defoliated with only the main rachis sticking to the stem, to remind one, of their destructive work.

Often had I occasion to pass by these plants subsequently, but not once did I see anything more than what looked to all appearance leaf-scars close to one another on the stem. It so happened that on the 8th March, while bending a branch of Acacia arabica for pruning, there came a shrill sound 'Kich, kich kich.' Not knowing whence it came, to look out for the agent of my surprise, I let go the branch. The sound stopped with the rebounding of the branch and I looked about, all in vain. Notwithstanding the disappointment I bent the branch again and with its end went on striking at every plant around and searched in the cracks and crevice in the black cotton soil. Once more came forth the 'kich, kich' and this time from an Ailanthus excelsa plant. I stooped down to examine, only to find the apparent leaf scars no longer scars but only cocoon (very cleverly constructed, indeed, so as to completely resemble scars on the stem) the least disturbauce of which excited the insect, inside, to produce the shrill 'kich, kich.' This appeared to me strange and my curiosity prompted me to cut a portion of the stem with these cocoons off the plant and keep it under observation. In the absence of my breeding apparatus, I put the branch in an open mouthed bottle and let it remain. I had not long to wait. On the 11th morning, I took out the bottle, only to see pretty looking winged insects come out of the cocoons and on the look out for a way to escape.

Any word other than 'pretty' would not be the most appropriate for these which possessed such beautiful colours, as grey, brown, mottled with black specks in the head, chest, forelegs, bright yellow and not without black dots in the abdomen and the remaining legs, the hind wing with a black apical area. What was most striking and which made them really pretty, were the grey brown fore wingswith an olive tinged margin. I took these to the Gass Museum, where, a fine collection of moths and butterflies is kept and there, after careful comparison I found this to be *Eligma narcissus,* moth of the order *Lepidoptera* sub family *Lithosinea.*

Beauty is not all that is required considering the harm these moths do; should the desire be the complete destruction of these in favour of the encouragement of Ailanthus plant it is easily accomplised by exposing the insects when, in the cocoon with a bamboo or any simple stick.

B. S. CHENGAPPAH.

[This interesting record of a student's powers of observation will, we hope, form an encouragement to other students to note and follow up systematically, phenomena met with. Patient scrutiny of apparent trifles is the secret of discovery and original research—EDITOR.]

## Sandalwood Observation areas.

### NAMAKAL RANGE.

There are 2 sandalwood observation areas in Namakal range, both being situated in an unreserve in Valappurnad—elevation about 3500′, Soil of loamy sand with disintegrated gravel below, and with a westerly aspect. Fairly thick growth of Sandal occurs on the area, the chief among tree associates being, Canthium didymum, Albizzia Lebbek, Albizzia odoratissima, and Phyllanthus Emblica. Among undergrowth we have Zizyphus œnoplæa, Cipadessa fruticosa, Toddalia aculeata, Dodonæa viscosa Cæsalpinia Bonducella and Hiptage madablota. ,One of these abservation areas was opened on 27th April 1916 and 193 Sandal trees were enumerated in it; the other area was opened on 14th October '16 and 158 trees were enumerated in it. Area no. I was chosen as an area containing spiked trees, there were 19 spiked trees in it on 27-4-16. The observations here were mainly with regard to the date on which each tree was first observed to be spiked and the date of its death. Between 27-4-16 and 20-8-17, 16 of the healthy trees got spiked on various dates as follows:—3 trees were observed to be spiked on 29-7-16, 1 on 29-9-16, 1 on 27-11-16, 2 on 20-5-17, 1 on 22-5-17, 1 on 12-6-17, 1 on 20-7-17, 3 on 12-8-17 and 3 on 19-8-17. Monthly observations were being made which ceased on 20-8-17 and were resumed on 29-8-18; on the latter date, 8 more of the healthy trees were noticed to have been spiked. Between 27-4-16 and 29-8-18, 10 sandal trees were found to be dead, 9 of which were spiked trees and the remaining one was a healthy tree. Of the 9 spiked trees that died, 4 were already spiked at the time of opening the abservation area. The remaining 5 were those that got spiked after 27-4-16. As may be seen from the following figures, spiked trees have died a year after getting affected with the disease, the exact period varying from 12 months 2 days to 12 months 23 days. The following table gives some particulars of the identical trees from whose history the above deduction was made.

| No. of the tree. | Date on which the tree was first observed to be spiked. | Date of death of the tree. | Time taken by the tree to die. | | Dates of observation if any between the Periods noted in cols: 2 & 3. |
|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | | 5 |
| | | | Months. | days. | |
| 104 | 29—7—16 | 12—8—17 | 12 | 14 | 29—9—16 &<br>22—5—17 |
| 110 | 12—8—17 | 29—8—18 | 12 | 18 | Nil. |
| 111 | 12—8—17 | 29—8—18 | 12 | 18 | Nil. |
| 178 | 27—4—16 | 20—5—17 | 12 | 23 | 20-11—16 &<br>12—1—17 |
| 193 | 27—4—16 | 29—4—17 | 12 | 2 | 29—7—16<br>29—9—16<br>29-11—16 &<br>25—3—17 |

Observations have to be made on a larger number of trees before any definite conclusions can be drawn. Observations so far made tend to show that spike is not active during the months December to April, both inclusive and that a spiked tree takes a year to die. The girths of the trees are not available on record and as the tar numbers on the trees have disappeared owing to efflux of time it is not possible to get the information now.

2. Area No. II "was specially chosen higher up the hill *devoid of spike* to see if spike was travelling upwards as well as downwards." On 29—8—18, 2 of the healthy trees had just got spiked in this area. On 3—12—18, the number of spiked trees rose to 10, on 22—2—19, the number was 11 and on 22—3—19 it was 12 at which figure it remained stationary on 25—4—19. I have particularly noticed in this area that in the case of newly attacked trees, *the lowest branches* get affected first; this directly contradicts the statements in Page 142 Vol. III of the Madras Forest College Magazine by Junior student K. P. Chathu Nair that in Denkanikota "the first attack of spike is always noticed to appear on the very top of the tree and gradually develops downwards until layers of branches get infected." In the observation area no. II in my range I have observed in the case of 2 trees, the first attack of spike appearing in the lower branches. This shows the necessity for making observations with regard to the same matter in different localities with different environments. The observations made in this area show that spike spreads upwards as well as downwards. A large scale map of the area shows that spike has been spreading in all directions, though there is an apparent tendency to spread more rapidly downwards than in other directions.

3. The disease has spread far and wide on the Namakal-kollimalais. The most richly stocked area of the range is badly over—run by this devastating disease. Saplings appear to catch the disease quickly; over 2000 spiked trees are marked this year of which well over 75% is below 12″ in girth. These will be soon extracted or cut back. There are no seedlings to take their place. The prospect is dim. Should areas where spiked trees are felled to prevent spread of the disease be artificially regenerated with sandal? It may be argued that such areas being susceptible to spike, the sandal that comes up there under artificial regeneration is liable to get attacked with the disease in course of time. But

if steps are not taken to ensure that healthy seedlings take the place of the rapidly disappearing spiked trees, will not our forests be eventually depleted of sandal areas ?—*quod avertat Deuo.*

Namakal,
11th June '19

S. G. VENKATARAMANA IYER,
*Forest Range Officer.*

# Forestry as a Vocation.

### BY H. H. CHAPMAN.

With the return of nearly two million young men from the trenches and the varied activities of military life in France, comes a heightened interest in forms of outdoor employment. The appeal of forestry as a vocation has always drawn a class of young Americans whose love of the woods and of the hardships of the trail is combined with a desire for public service for scientific achievement, and for clean, practical effort.

Probably no profession holds a greater lure for those who rebel against the confinement of indoor occupations and have a genuine love for the woods and mountains, yet no calling is so little understood in America to-day as this modern vocation of forestry.

Forestry is the art of maintaining forests for the benefit of mankind. It is, first and foremost, a *land* question, for forests are the product of forest soils. Since forests as such must occupy land to the exclusion of agricultural crops or of fruit trees, forestry is based on the proper segregation of lands into the two fundamental classes, agricultural lands and forest lands. The forester's vocation usually excludes agriculture, but he is frequently called on, in co-operation with agricultural and soil experts, to conduct these land classifications. For this reason, a knowledge of farming is of great value to the forester.

The status of the land once determined, the forester's object is so to manage these forest areas that the greatest possible sum or combination of benefits may accrue to the communities dependent on them. These benefits are threefold. First, may be mentioned the use of the forest for recreation. This use has the widest appeal to sentiment, and is invaluable for maintaining health of body and mind for our increasing population of city dwellers. Areas set aside *exclusively* for this use are known not as "forests" but as parks and while the foresters as such can perform invaluable services in protecting the forest from fire, insects, diseases, and other enemies, he cannot here bring into play the full exercise of his abilities, for this includes the cutting and utilization of timber which is usually prohibited on such areas. The care and preservation of game, a specialty in which the forester is profoundly interested, will find its fullest development on large park areas.

The second great benefit from forest areas is the protection they afford to our soils and water supplies. Perhaps this is the best-known and best-understood function of a forest cover. In maintaining the flow of springs, in preventing the erosion of surface and the silting up of rivers in reducing floods and prolonging the flow of streams in dry periods the maintenance of forest cover is essential. Here, again, the forester's function is the protection of existing forests. But both in parks and protection forests there is the frequent necessity of re-establishing by artificial means the forest cover on slopes denuded by fire or by destructive lumbering. In this latter role the forester must be a tree planter and must get his results, not as the ornamental nurseryman does, by pampering the individual plant, but on a large scale, with small stock, at minimum expense, and in competition with such destructive forces of nature as drought, wind, insect pests, rodents, frost, snow, and grazing animals.

But the real art of the forester lies in the management of the forest for the continuous production of wood in all its forms. Wood must serve us in many capacities, such as for fuel, buildings, furniture, paper, vehicles, and so on in an ever-widening circle. It cannot do so unless trees are cut, logged, transported, manufactured, and laid in a finished form at the door of the consumer. The cutting down of mature forests is necsssary to the comfort and well-being of the very individual who declaims against this destruction because of his sentimental regard for the forest in its natural state. The lumberman has built up an enormous business whose exclusive concern is to supply the economic demand for wood products by taking from the forest the raw product of nature, the mature tree, and converting it into lumber from which by other processes finished products are made. It is not the business of the lumberman, as such, to do more than this. And as long as the supply of virgin timber holds out in America, the lumberman will continue to draw upon it as if it were inexhaustible. His business begins with the felling of the trees; the forester's business, as such, sees its completion in the same process. Forestry precedes and underlies the lumbering of the future. The true business of the forester is to grow the timber which ultimately finds its way into the economic life of the nation. Just as one agricultural crop must be harvested before another is grown, so a mature crop of trees must be cut before a young, vigorous second growth can appear. The forester's art is so to cut this timber that the forest will reproduce the most valuable species. Only by accident does this result occur naturally, following the operations of modern logging, and it never happens more than once on the same site. The worthless brush and forest weeds which spring up so frequently on old cuttings have about as much resemblance to commercial forests as thistles have to wheat. They are both green in season! Not that the lumberman cannot manage his lands as forests should be managed if he sets out to do so, but that he too often has no interest in the land itself except to get rid of it as soon as the mature timber is cut. He owns it in order to assure to his business an early supply of raw materials, wood.

The forester, then, is one who manages forest land for the purpose of growing trees and maintaining the productivity of the soil and of the forest. Do lumbermen employ foresters? They have need of timber cruisers to estimate the volume of their merchantable timber, of logging engineers to lay out their railroads and logging operations, of woods foremen to superintend the logging, and of inspectors to secure close utilization of the tree. There are many opening along these lines, as well as in the milling, manufacturing, and selling end of the business, but none of these is forestry, however *essential to forestry* these operations are. When the lumberman, as a land owner, adopts the policy of reproduction and growth of trees, and sets out to retain indefinitely the ownership of cut over land for the possible future revenue obtainable from such management, then the forester will find an opportunity to practice his true vocation as manager of such tracts. His education as a forester may fit him meanwhile for useful employment along these kindred lines. In other words, the character of land ownership and the purpose of the owners determine whether the work of the forester constitutes the practice of his vocation or of some other line associated with lumbering or manufacturing. The man who worked in the French forests with the forestry regiments can bear witness to the truth of this statement. For over there, about half of the forested areas are publicly owned and on the rest, the private owners have practised forestry for decades, even for centuries; otherwise there would be no French forests! Every acre of these forests, no matter how owned, has been produced directly by the art of the forester; and the French forests saved French as truly as did the American Army.

In America, due directly to our superabundance of virgin timber. private owners, as a class, could not afford and did not care to undertake the expense of producing timber; the competition with virgin forests prevented it. So it has come about that forestry and employment for foresters as such, has developed principally on the National forests under the United States Forest Service., which controls 155 millions acres of public lands set aside for timber production. The Forest Service employs over 2,500 forest rangers and officials of higher grade. At present, the larger number of men is taken into the Service as rangers after their passing an examination to secure Civil Service rating. This examination is given annually, in the fall, and is based upon familiarity with certain essentials of the work of a ranger, such as compass surveying, handling, small timber sales, the administration of grazing for forest users, fire fighting trail or road building, packing supplies, and making out reports. Western experience counts for much, and before taking the examination it is customary for an applicant to seek a position as forest guard, fire lookout, or "temporary" ranger during the season preceding the examination. Applications for such employment may be made to the District Foresters at San Francisco, California; Portland, Oregon; Missoula, Montana; Ogden, Utah; Denver, Colorado, or Albuquerque, New Mexico. These positions pay a salary of $ 1,100 increasing by promotion to a maximum of $ 1,500. Many rangers have only a common school education, but the opportunity for advancement beyond this grade is largely determined, first, by the amount of additional education possessed by the rangers, ranked in order as graduates of high school, college, or technical school of forestry; second, by their character and ability to master the work, take responsibility, exercise initiative, and become good executives. The second method of entrance into the Forest Service is by passing a highly technical examination for the Civil Service grade of Forest Assistant. This requires a complete course of training at a technical school of forestry, equivalent to a 4—year college course with one year of post-graduate work. The Forest Assistant ls frequently assigned to ranger work on entering the Service. The benefits of entering the Service as Forest Assistant lie largely in the educational training obtained previous to employment. Forest Assistants are also given work in reaesrch at Forest Experiment stations, in timber-sale administration, timber estimating, grazing inspection, and general administrative work. If they show adaptability and character, they, as well as rangers, may become Forest Supervisors at salaries from $ 1800 to $ 2400 or eventually may obtain higher executive positions paying up to $ 3600 in the District Offices or at Washington.

Certain States, as New York and Pennsylvania, which own large areas of land set aside as State forests, employ foresters. Pennsylvania educates her own State foresters at the Forest Academy of Mont Alto. New York here by Civil Service Examinations in technical forestry.

The employment of foresters by owners of private lands will steadily increase from now on as land owners begin to realise that non-agricultural land can be made to yield an income in no other way. Paper companies, with millions invested in plants, are apt to desire a permanent output from their spruce lands, and they employ foresters to secure this end. Mining companies in regions where the supply of virgin timber is nearing exhaustion are taking an interest in forestry and foresters.

Owners of large estates composed of woodland, and institutions with ferest lands are realizing the need of employing foresters properly to care for their properties.

A host of small land owners exists such as farmers or owners of small estates, who can and should practise forestry on woodlots and waste places. These tracts are not large enough to justify employing a trained forester. To supply the wants of these owners, States have, established forestry departments for public education in forestry, as well as to secure fire protection on forest lands. This educational work gives employment to a few feresters who have special gifts for public work or who are needed for forest "extension" work among land owners. In addition, forest rangers are employed to specialize on fire patrol and prevention.

Finally come the forest schools whose business is to train and educate the foresters. Schools exist for the training of forest rangers and foremen of forest estates, which usually give a one-year course, mostly in the practical work of a ranger, such as that of fire supression tree planting, marking timber for cutting, surveying, and of other lines A still larger number of schools of forestry have been established. The recognized standard for adequate professional training is a 5 years college course based on the sciences of botany, physics, mathematics, and-political economy.

The work of a forester may begin in the solitude of the wilderness with the survey topographic map and estimate of timber, but it comes back to contact with men. The purpose of forest management is to serve mankind, and in working out these problems of service not merely for next year but for decades to come, the forester acquires a breadth of vision and an insight into economic laws which make for the building of character. His profession demands of him a rugged physique and ability to endure hardship, yet lifts him out of the monotonous drudgery of manual labour. No calling makes such varied demands on the individual, or so stimulates all-round development. The forester, in order to rise to the top of his profession, must be able by close observation to analyse the living forces of nature as expressed in the growth of trees and the survival of seedlings, and must control these forces to secure the ends desired. This requires scientific bent of mind and training. He must have an intelligent appreciation of engineering problems which are often the key to the use of forest resources, and must be alive to the economic needs of communities, that he may shape the Forest management to supply them. But he must also be a public leader, to secure co-operation in fire protection, create sentiment favourable to the establishment and continuance of forest policies, and secure beneficial legislation.

The foresters of America face a task which is only just begun. They have, however, shown themselves to be equal to their responsibilities, and to posses a knowledge of their common aims and ideals. Each member of this new profession strives to wrest from nature the control of her life-giving processes, and from man the recognition that foresight, conservation, and thrift must take the place of unrestrained exploitation of natural wealth in timber if our national prosperity is to continue.

Extract from "AMERICAN FORESTRY."
for May 1919.

# Breaking rock by burning.

I do not claim any originality nor am I bringing over any new facts which are not known to one and all of Forest Officers. But what I am endeavouring to explain as briefly as possible is that breaking rock by burning is very practicable and effective besides its being simple and economical. Though every Forest Officer knows that rocks may be broken by burning and pouring water over it immediately after it is well burnt, yet, in my experience I have seen, few or none using this method as an effective means of removing rock in laying out roads in hilly localities. Different kinds of rocks such as Sand Stone, granite boulders, and also sheet rock, which often defy the wits of ordinary forest officers can be successfully removed. For the first burning the upper disintegrated portion peels off in flakes thus exposing the hard under surface; but on repeating the process it breaks off in lump and not only that, at every time the rock is burnt it develops a number of cracks, and by driving wedges into these and using crowbar, large quantities of rocks can be easily and repeatedly removed. So, what I am attempting to impress on the minds of my readers in that burning method can be employed as an effective and main method in removing rocks to the best advantage. My critics may say that this method is not practicable where there is no water available near at hand; but it is not the case and it is my experience that the difference between results with and without pouring water is very little and almost a negligible quantity. With the crude method that is generally adopted a stone cutter with two other men to deliver hammer blows alternately on the jumper will not be able to have holes more than about 2 feet deep in all, through hard stones. And after such hard days of costly labour the concession of dynatic or magazine finds its way through the line of least resistance, the results will be discouraging and it is no wonder that a sigh of despair escapes one interested. But in the case of the burning method there is no such disappointment. The method is safe even in the hands of men with no experience, and it is not only simple and economical but also speedy and yields better results than blasting. The above information is based on the experience gained while laying out a road by the Vernacular Training School Students on Kambakam Hill plateau during March 1919.

S. CHIDAMBARAM,

*Junior Instructor*,

V. T. S. Chingleput Dt.

## Under—Planting in Nilambur.

My learned readers are aware that, preparatory to discussing proposals to under-plant teak, with suitable species to raise a layer of humus, of which, no doubt, there is a considerable absence, on the ground, Mr. Umapathi Mudaliar, in the course of an * article on the subject, makes certain statements, on which, he bases this absence of humus and deplores a consequent toxicity of the soil, under the teak plantations of Nilambur.

An Indian Forester though I am I should ask my readers to pardon me, when, in the following lines, I venture, in spite of an incompetence that I feel, to review, though with a view to just invite abler comments on Mr. Mudaliar's statements.

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* Pages 50—54 Vol III No. 2.

Now, then, the first of these statements that Mr. Mudaliar makes is "The Teak has not got much foliage" To this when he adds "I mean compared with shade bearing species" I should understand that, by the statement, he certainly means that the species of teak does not, as a rule, form so much foliage as a shade bearing species does.

On the other hand, what I observe in Nature is that, when compared to most, if not to all of its shade bearing associates, teak a great light demander, bears, when not suppressed or congested, a very heavy foliage on a much branching and spreading crown that it soon developes after topping over the less light loving species that teak is always found mixed with, in nature.

As protection of the soil against toxicity is, as he tells us, at the very commencement of his article, all his object in raising a layer of humus on the ground, he cannot, as I explain later in this note, be right, when, in his next statement, Mr. Mudaliar tells us that the little foliage that falls on the ground does not form good humus. Nor is he correct, when by the further statement, he would have us believe that what little humus is formed is either blown away by wind or burnt after the final felling. I doubt if, even on the provision of poor foliage to teak by Mr. Mudaliar, wind can effect the damage so wholesale. On the great mass of foliage that annually falls on the ground, by Nature's provision, all the worst April storms that we get in Nilambur, have not been found to effect the damage half so wholesale. What is burnt after the final felling can, according to his own theory, only be the foliage shed during the season preceeding the felling, and, no doubt, the effects of the final crop removed also. When physical protection of the soil by a cover of humus is not much, Mr. Mudaliar's point, what harm this destruction by burning of the leaves and the effects of the final crop can then do to the soil, is not apparent. By burning, we add to the soil potash, much of which does not in the flat country that these plantations in general present, get washed away by rain, and should therefore, on the other hand, certainly be adding considerably to the fertility of the soil from the point of view of, perhaps, its toxicity. But, still, then burning after the final felling is the crowning point of Mr. Mudaliar's arguments in support of the very toxicity that he fears in the soil.

I pause here for a moment more to, now, consider yet another of his statements, which, in my opinion, is incorrect. To quote — the statement runs thus:— "Much of the nutrition goes to form wood cells in the stem and branches" and when made, as it is, though incidentally, incontinuation of the first statement that teak has not got much foliage, should certainly mean that, as a result of teak's not forming much foliage, much nutrition is saved and that this nutrition is used up in forming wood cells in the stem and branches. I really fear much to comment on this and should therefore ask my readers to just compare the statement with what any author on the subject has to say on the point of formation of wood cells and its direct * relation to the amount of foliage physiologically.

To pass on then to another article, on "underplanting in Nilambur" I should state that in the course of this, the writer Mr. C. Karunakara Menon quickly gets to discussing suitability of species to underplant teak with, while by way of assigning reasons for the great absence of humus he too I think (I have not got this article before me

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[* We thank Mr. Chaikku for his pointing out this error in Mr. Umapathi's article. Certainly, a diminution of foliage in a tree, while it serves to lessen transpiration, entails a corresponding decrease in the assimilatory activity and hence of formation of plant tissues. In attempting to adapt themselves to their environment, plants make the necessary compromise.—EDITOR.]

now) has but, the * wind and perhaps an easily breaking nature of the teak leaves also, to blame. This easily breaking nature of the leaves is not by the bye, natural to teak but acquired as any other leaves would acquire, by long exposure to the sun that these teak leaves are subject to on the ground, under the deciduous crop of teak in the plantations. The writer does not however explain clearly how this state of the leaves contribute to a reduction in the humus on the ground. If he thinks that by virtue of this easily breaking nature, the leaves disintegrate and get easily blown away by wind, I have but the same answer to this, as I have given against Mr. Mudaliar's theory of the wind.

Let not their arguments, however, be denied the benefit of the fact, that, in the pure crop of teak in these plantations the early density of the crop, its even age and the careful tending which the crop receives at the forester's hands, aiding teak's recognized propensities to complete its height growth, early development of full crown and foliage starts late in life and is also gradual and slow as it proceeds with the gradual openings by thinnings. The result is that, in the long run, the amount of foliage formed on the plantation teaks is poor, when compared to that on teaks in the natural forest.

To still strengthen their argument will it be, to mention, also, that defoliation by insects that invade these plantations for the purpose annually, causes a considerable reduction in the foliage on teak in the plantations.

But in spite of the much accused wind's influence on the leaves on the ground and inspite of also the two factors that contribute to a real reduction in the foliage on teak we, during the season of rest, when the deciduons teak has shed all its leaves and also when the worst

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[* He does not blame the wind—EDITOR.]

April storms have come and gone, still find on the ground under these plantations—not to talk of the large effects (Top ends branches & c.) of the crop removed by thinnings—a thick mass of leaves, the sudden disappearance of which, by the beginning of the rains is what, in an articles on the subject should have first been enplained.

I should, in this note on the subject, to now explain, this sudden disappearance of the great mass of leaves, state that by investigation in the direction indicated to us in the concise Manual of sylviculture, we find that when soaked by rain, the leaves, sooner than, when not soaked, are attacked and get reduced to apparently nought but the woody veins, which remain for some days under attack, by white ants, of which, we have in these tropical countries, teeming millions.

An acknowledged authority on Indian Forestry has, in the course of a book on the subject, observed that these white ants cover, instantly with earth, every leaf and other vegetable matter that get left on the ground, and carry them piece-meal into the earth, where, in course of time, other earth worms eat them with particles of earth and send up as "worm castings" in which form they get well mixed with the soil. The humus is, thus, not lost but only hidden.

And, Mr. Jogeswara Rao has, when, in the course of his "Forest Principles and Indian Forestry" — the editorial note at the foot of which, by the bye, could have been of immense benefit to the readers if those responsible for it, had in the note, given out points of difference — where and how they differ from or where they do not follow Mr. Rao in the expressions of his views — on pages 60 - 65 of Vol: 2 of this Magazine, he (Mr. B. V. Jogeswara Rao) writes to the effect that to have a constant layer of humus on the ground in these Tropical Forests is impossible, has the full support of, not only the authority just alluded to above, but also of, the concise manual of sylviculture, in that, it says that in the plains of India by the beginning of the rains, the action of white ants hasten destruction as well as decomposition of fallen leaves, trees, branches and debris of all kinds. No man can then, gainsay Mr. Rao on the point.

We see thus that by the action of the white ants first, and then of earth worms; not only do the leaves but also all other vegetable litter on the ground, get reduced to their primary constituents and added to the soil.

By the sudden disappearance of the humus, what we lose, is, therefore, the physical protection of the soil and not its chemical properties.

On the score of the absence of humus on the ground, therefore, Mr. Umapathi Mudaliar or any body else can have, absolutely, no reasonable fear of any toxicity in the soil.

Anxious attempts have, never-the-less, been made to mix teak with certain other species, and if given out with the full history of the experiments carried out in these attempts, their results would have no doubt, been interesting to know. This history is, still, what Mr. Mudaliar omits in his announcement of the results at the commencement of his article. The point for consideration here is, how ever, not this.

With what object in view the attempts at mixing teak with selected other species have been made is what we should now consider:-

We now know, that teak is not a light-foliaged species; *but a very heavy foliaged one*. The object in mixing can, therefore, have, never, been to supply Mr. Mudaliar's ill-imagined deficiency of foliage on Teak.

We have seen that the great mass of foliage with all other vegetable debris, of which the ground under the teak plantations of Nilambur, get a great good lot, from time to time, in the form of top-ends, and branches left by thinnings, gets well mixed into the soil in the form of these constituent elements. The object in mixing teak with other species cannot have, therefore, been to supply the unfounded, and indefinite, chemical deficiency of the soil, feared by Mr. Mudaliar. We have seen, too, that in these Tropical Forests, white ants render it impossible to have a constant layer of humus on the ground. It cannot be, then, with reasons, supposed that the object was to raise a constant layer of dead vegetable cover on the ground.

The object which those responsible for the attempts at mixing teak with these other species had in view, was, I think saner, surer and not very far to seek. While the white ants leave the ground bare of all dead vegetable litter, the pure crop of deciduous teak, leafless during the hottest months, expose the soil to the baking heat of the sun for a considerable period, every year. So far as I can understand, what they feared was, of course, the deterioration of the soil with regards to its physical properties, which are as emphasized by every writer on the subject, — of far greater importance in Indian Forestry, when we really care for the protection of our soil. They fear that by deterioration in its physical properties, the soil may not be able to bear the same intensity of growth on a second rotation as on the first. The idea that underlay the attempts at the mixture and the idea that lies under the proposed under-wood to teak in the Nilambur plantations, is all, I think, to raise a leaf cover, to afford protection to the soil. The idea is not new to us for we find reference made to it in that great guide of the Indian Forester viz "A concise manual of Sylviculture" much indebted to the author for which every Indian Forester shall ever remain.

With the above object in view in the proposed under planting I shall try to join Messrs. Mudaliar and Menon, on the discussion of suitability of species to plant under teak next.

10—8—1919.

K. Chaikku,
*Range Officer.*

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[We welcome, in particular, such articles of a critical nature, from the Ranger class—Editor.]

## The Foot-ball season.

### MADRAS FOREST COLLEGE, COIMBATORE.

The foot-ball season commenced from the month of February 1919 when the Six-a-side tournament began in the Sadivayal camp. The Semi-finals and the finals were played at head-quarters. In the finals, the play was very much contested and the team captained by C. L. Narayana Rao won the tournament.

During the month of March, when we were in head quarters, four matches were played, the first two being against the Agricultural College and the other two against the Stanes' High School. The first match against the Agricultural College was a draw and the next was a defeat for us. We won both the matches against the Stanes' High School.

During the month of May, we played two matches against the "Crescent Foot-ball Club, Coimbatore" which has the reputation of being one of the best teams in Coimbatore. Both the matches were "drawn" with the same score one goal each. The game was keen, brisk and well contested. The College goal keeper, A. Rahimkhan, defended his goal very successfully

The following are the scores in foreign matches :—

| | | | |
|---|---|---|---|
| 4—3—1919. | *vs.* | Agricultural College ; | Draw 3 all |
| 18—3—1919. | *vs.* | do. | Win 4 to 2 |
| 20—3—1919. | *vs.* | Stanes High School. | Win 2 to 0 |
| 27—3—1919. | *vs.* | do. | Win 3 to 1. |

The year match between the Senior and Junior divisions of the College was played on the 24th of June, before the chief conservator and the Board of visitors. Owing to the strong wind, the game was concentrated in one wing alone. The game was equally offensive and diffensive on both sides, becoming more and more keenly consested as the time grew nearer and nearer to the long-blast of the controlling whistle. The match ended in a defeat for the Junior division to one goal.

The students awarded colours during this season are, Jurianze, Vajravelu, Narayanswami Iyer, Rahimkhan.

The old "Colours" were

A. Seshagiri Rao (CAPTAIN) and C. L. Narayana Rao.

A. SASHAGIRI RAO
*Foot-ball Captain.*
19—7—19.

# Gymnastic Display

AT

THE MADRAS FOREST COLLEGE.

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On the afternoon of the 28th June, the students of the College, gave a Gymnastic display in the presence of the Chief Conservator and Mrs. Cox, the Principal and Mrs Cowley-Brown, and the Board of visitors.

The programme opened with a group feat, and comprised a series of individual efforts, with two more groups interposed.

The opening group was an escalading feat in the form of a human tower: eight students formed the base, four the second storey, while B. S. Chengappa, and M. P. Subbiah undertook the sky-scraping. The execution of the group was very smart.

The other two groups were based on the parallel, and horizontal bars respectively, with Venkateswarulu doing the long-arm balance in the centre of each group. Both were very effective.

The individual feats were exceptionally good, the gymnasts being Venkateswarulu, M. P. Subbiah, Narayanasamy and Narayana Rao.

The "Star turns" were entrusted to Junior student Venkateswarulu, a finished gymnast, who performed some remarkably good stunts, particularly the "Plant" on the parallel bars, a feat requiring strength as well as skill, and the grand circle.

The setting of the groups was almost entirely the work of the students, and the execution was under the direction of the Junior Havildar.

The display lasted about fifteen minutes, andmost of the spectators wanted more, which is a sincere proof of appreciation.

If the new division furnishes a normal percentage of gymnasts, the display next year ought to be quite as good, if not better. It is hoped that the Havildar also will give a demonstration on the next occasion.— contributed —

## Report on the judging of the Hostel gardens.

We publish below the criticisms of two of the judges of the Student's gardens:—

The Hostel gardens exhibited a wide range of quality; some were very poor indicating hardly any effort, eg: the garden plot between blocks 9 and 10, whilst others were distinctly good.

Block IV had the best garden undoubtedly. It was well laid out in accordance with a preconceived plan. The design was neat and though there was not much in it in the nature of flowers, there was evidence that a deal of care had been taken in its formation.

Block VIII had the next best garden. The designing had not been so carefully done as in the case of block IV, but, there was a good growth of flowering plants, Zinnias in particular.

Block V ran this very close. A portion of it was well laid out and a fairly good growth of flowering plants.

Block I was principally the effort of one student, who had a very ingenious form of fountain with suitable plants around it. The remainder of the plot did not exhibit much effort in gardening.

In future, I would suggest, that students should be advised to design their plots carefully, *i.e.* draw a plan of their idea of a garden and then, lay it out accordingly.

The gardens should be raised from seeds and plants supplied by the College. Obtaining of other species should be disallowed, as some students may have special facilities in this respect and would thereby have an unfair advantage over the others.

The idea of Hostel gardens is an excellent one. It must give the students pleasant occupation in their leisure moments, in addition to giving their quarters the homely appearance and tone desirable in a College.

8—7—1919.

A. Crothers.

## The Students' Gardens.

The Judging of the students' gardens took place on the evening of Sunday 29th June. The Judges were Mrs. Cox the wife of the Chief Conservator, Mrs. Crothers, and Mrs. Cowley-Brown. They took some time with their deliberations as they had no easy task. The students had been faced with many difficulties in the cultivation of their gardens: some due to the climate such as wind, lack of water and an inhospitable environment for flowers: others which came from the fact that they were in camp until about five weeks before the gardens were judged. There were many points to be considered. Some hostels had excelled in design and neatness, rather than in abundance of blossom; others again had merely outlined their irregular-shaped piece of ground with stones or borders, but had a wealth of strong grown flowers within: one had been developed in one corner only where a well-designed miniature-garden with a fountain had been made. How to decide fairly among gardens of so many different merits was an arduous undertaking.

In the end the Judges decided that the garden of No. 4 Hostel, belonging to the Coorg Students was on the whole the best: it was of a very good design using up practically the whole of the ground allotted, it was well thought out, well kept and showed much care and attention: the flowers however were not by any means the best among the entries.

The 2nd prize was given to Block VIII, which had a perfect wealth of flowers, growing very strongly, and obviously well-cared for. As at first arranged there were only two Prizes, a 1st and 2nd, but the Judges added a 3rd and a consolation prize, as they felt that with only 2 they could not make a fair decision. Block V got the 3rd prize and Block 1 the special consolation prize for the small miniature garden, Next year it is hoped that there will be another garden competition: doubtless with their present experience the students will improve greatly on this year's work. At Coimbatore undoubtedly the thing to do is to give your attention to flowers and plants which really flourish and make a good show, rather than to drag up painfully things which do not like the climatic conditions. It is also to be remembered that borders and little hedges are a great feature here: in the case of the students flowering shrubs and such things as Cannas and ferns would be suitable as they would not need much attention while the College was in camp, except in the matter of watering.

S. C.-B.

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# A SUGGESTION.

Some time back, a proposal to erect a Reading Room was brought up before the Government which, not only gave its consent but also promised to contribute half the cost, the other half being contributed by sympathisers. I beg to suggest the following which, if unanimously accepted by my college mates would soon enable us to carry out the proposal.

Thanks to the Madras Government, the reorganization scheme of the Forest Executive Staff has been sanctioned and it is to be given effect to, I hear, from Ist October 1919, from which date all Rangers will get at least Rs. 30 more than their present pay. If those students, who had the fortune to have the Madras Forest College as their *Alma-Mater*, would only subscribe their increment of the 1st month towards the erection of the room, I am sure we would be able to raise more than what would be contributed by the Government and thus to start the the building forthwith. It is, but a small token of our gratitude when we recall to our minds the kindness and consideration with which the Madras Forest College has shaped us to the present state and the zeal with which our welfare was watched whilst in the college.

I am sure most of my mates would agree to this and to those who do not, I would point out that, if, owing to want of funds, Government sanction the scheme only from 1st November instead of October they would have to lose it and that by payment of this increment out of their own free will, they would only raise themselves in the estimation of the rest.

Whether my suggestions are worth consideration or not, I leave it to the partriotism and good will of my mates towards their *Alma-Mater* and hope that my proposal would be gladly accepted.

Nilambur,
25th June 1919.

A SWAMIKUTTY,
*Range Officer.*

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## Students' Club Fund.

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The following subscriptions have been received so for :—

| | | Rs. | AS. | P. |
|---|---|---|---|---|
| | Imperial Service Officers | 1220 | 0 | 0 |
| | Provincial Service Officers :— | | | |
| | Mr. E. M. Crothers ... | 50 | 0 | 0 |
| | Rai Sahib K. R. Venkataramana Ayyar | 25 | 0 | 0 |
| | Md. Abdul Karim Sahib Bahadur | 15 | 0 | 0 |
| | Mr. Mc Claughlin ... | 20 | 0 | 0 |
| | Rangers :— | | | |
| Messrs. | C. S. Ramanathan ... | 4 | 0 | 0 |
| | M. Doraiswami Ayyar ... | 9 | 0 | 0 |
| | A. Manickka Mudaliar ... | 10 | 0 | 0 |
| | P. A. Krishnaswami Mudaliar | 5 | 0 | 0 |
| | S. Srinivasa Rao ... | 10 | 0 | 0 |
| | K. A. Raghava Rao ... | 15 | 0 | 0 |
| | A. P. Srainivasa Ayyangar ... | 15 | 0 | 0 |
| | Kerala Varma ... | 10 | 0 | 0 |
| | S. Ramachandra Ayyar ... | 5 | 0 | 0 |

| | | Rs. | AS. | P. |
|---|---|---|---|---|
| M. N. Raman Pillai | ... | 10 | 0 | 0 |
| A. Sawmi Kutti | ... | 15 | 0 | 0 |
| S. Chinna Dorai | ... | 20 | 0 | 0 |
| C. M. Kunhirama Nair | ... | 10 | 0 | 0 |
| Korah Fenn | ... | 10 | 0 | 0 |
| S. M. Srinivasagam Pillai | ... | 10 | 0 | 0 |
| Gulam Dastagir | ... | 6 | 0 | 0 |
| D. E. Lewin | ... | 6 | 0 | 0 |
| S. A. Dawson | ... | 4 | 0 | 0 |
| K. Thiruvenkatachari | ... | 2 | 0 | 0 |
| C. Karunakara Menon | ... | 6 | 0 | 0 |
| N. T. Thambi | ... | 6 | 0 | 0 |
| P. Karunakara Menon | ... | 6 | 0 | 0 |
| K. V. Krishnaswami Ayyangar | | 15 | 0 | 0 |
| K. Venkataramanan | ... | 10 | 0 | 0 |
| T. Paramasivam Pillai | ... | 3 | 0 | 0 |
| P. Dananjaya Rao | ... | 2 | 0 | 0 |
| Kesava Pillai | ... | 3 | 0 | 3 |
| J. Ramalingam | ... | 2 | 0 | 0 |
| Rama Rao Kini | ... | 2 | 0 | 0 |
| L. A. Krishna Ayyar | ... | 3 | 0 | 0 |
| P. M. Mathew | ... | 5 | 0 | 0 |
| A. K. Kandan | ... | 5 | 0 | 0 |
| L. J. Taylor | ... | 7 | 0 | 0 |
| K. S. Raghavachari | ... | 7 | 0 | 0 |
| L. R. Narayana Ayyar | ... | 20 | 0 | 0 |
| Kunhiroyan | ... | 7 | 8 | 0 |
| S. Chidambara Ayyar | ... | 5 | 0 | 0 |
| B. S. Ramaswami Ayyar | ... | 5 | 0 | 0 |

| | Rs. | AS. | P. |
|---|---|---|---|
| B. Sambamoorthy | 10 | 0 | 0 |
| C. H. Ashe | 20 | 0 | 0 |
| C. S. Nanjappa | 10 | 0 | 0 |
| C. S. Srinivasa Rao | 40 | 0 | 0 |
| Mr. P. Krishnan | 5 | 0 | 0 |
| Interest due | 6 | 0 | 0 |

## Senior students:

| | | Rs. | A. | P. |
|---|---|---|---|---|
| G. Appa Rao | *Northern Circle.* | 20 | 0 | 0 |
| P. V. Krishna Rao Naidu | „ | 20 | 0 | 0 |
| A. Rama Rao | „ | 20 | 0 | 0 |
| T. Sriramulu Naidu | „ | 20 | 0 | 0 |
| P. Chengal Reddi | *Central Circle.* | 10 | 0 | 0 |
| T. M. Doraiswami Pillai | „ | 20 | 0 | 0 |
| J. A. Muliyil | „ | 20 | 0 | 0 |
| D. N. Subramania Ayyar | „ | 10 | 0 | 0 |
| D. Venkateswarulu | „ | 20 | 0 | 0 |
| K. P. Chathu Nair | *Southern Circle.* | 20 | 0 | 0 |
| N. S. Eswaran | „ | 10 | 0 | 0 |
| J. D. Theodore | „ | 20 | 0 | 0 |
| S. Nagalingam Pillai | „ | 25 | 0 | 0 |
| A. N. Ponniah | „ | 10 | 0 | 0 |
| K. Thangavelu Pillai | „ | 20 | 0 | 0 |
| K. R. Subramaniam | „ | 20 | 0 | 0 |
| K. Appayya | *Western Circle.* | 10 | 0 | 0 |
| S. V. Doraiswami | „ | 10 | 0 | 0 |
| P. Kannan | „ | 20 | 0 | 0 |

| | | Rs. | A. | P. |
|---|---|---|---|---|
| K. G. Monappa | *Western Circle.* | 10 | 0 | 0 |
| M. P. Subbayya | „ | 10 | 0 | 0 |
| V. Narayanaswami Ayyar | „ | 10 | 0 | 0 |
| M. Sankaran Nair | „ | 20 | 0 | 0 |
| M. B. Subbayya | *Coorg.* | 10 | 0 | 0 |
| G. Sankara Pillai | *Ceylon.* | 20 | 0 | 0 |
| Abdul Rahiman | *Hyderabad State.* | 35 | 0 | 0 |

## Junior students:

| | | | | |
|---|---|---|---|---|
| G. Venkata Subba Rao | *N. Circle.* | 10 | 0 | 0 |
| K. Venkatesan | „ | 20 | 0 | 0 |
| C. S. Ganapathi | „ | 20 | 0 | 0 |
| K. Ramamoorthi | „ | 20 | 0 | 0 |
| B. Krishna Rao | „ | 10 | 0 | 0 |
| A. Seetharamiah | *C. Circle.* | 10 | 0 | 0 |
| M. Parameswara Ayyar | „ | 10 | 0 | 0 |
| K. Raguraman | „ | 10 | 0 | 0 |
| V. N. Subramania Ayyar | „ | 10 | 0 | 0 |
| T. M. Krishnamachari | „ | 10 | 0 | 0 |
| D. Krishnaswamy Ayyar | „ | 10 | 0 | 0 |
| S. Nageswara Ayyar | *S. Circle.* | 15 | 0 | 0 |
| A. R. Manuel | „ | 15 | 0 | 0 |
| M. P. Philip | „ | 20 | 0 | 0 |
| T. Perumal | „ | 15 | 0 | 0 |
| T. P. Palani Kumaran | „ | 20 | 0 | 0 |
| S. Ramalingam | „ | 20 | 0 | 0 |

| | | | Rs. | A. | P. |
|---|---|---|---|---|---|
| P. A Madhavan | ... | *W. Circle.* | 20 | 0 | 0 |
| K. Raghavan | ... | „ | 20 | 0 | 0 |
| P. Sankunni Nair | ... | „ | 20 | 0 | 0 |
| K. O. Anandan | ... | „ | 25 | 0 | 0 |
| R. Ramaswamy Gavandan | ... | „ | 20 | 0 | 0 |
| N. Venkataramana Ayyar | ... | „ | 10 | 0 | 0 |
| N. M. Karumbayya | ... | *Coorg.* | 10 | 0 | 0 |
| C. S. Ganapathi | ... | „ | 15 | 0 | 0 |
| T. L. F. Perera | ... | *Ceylon.* | 15 | 0 | 0 |
| B. S. F. Lebbai | ... | „ | 10 | 0 | 0 |
| C. K. Alujankar | ... | *Bombay.* | 10 | 0 | 0 |
| V. Rama Rao Komolpur | ... | „ | 10 | 0 | 0 |
| Balakrishna Narayan Dev. | ... | „ | 10 | 0 | 0 |
| K. R. Marjani | ... | „ | 30 | 0 | 0 |
| C. K. Gulrajani | ... | „ | 20 | 0 | 0 |
| Nur Muhammad | ... | *Hyderabad.* | 5 | 0 | 0 |
| | | Total Rs... | 2651 | 10 | 0 |

An aggregate of Rs. 796—6—0 has also been promised by old students, but has not yet been paid.

No reply has yet been received from 98 old students and others to whom notices of the project ha been sent.

## Occasional Notes.

We offer our congratulations to the Hon. Mr. Cox, Chief conservator, and President of the Board of visitors, on his nomination to the Legislative council of the presidency.

* * *

During July, Messrs Crothers and Abdul karim, were deputed to undergo a 'refresher' course at the school of Field Engineering maintained by V. O. Sappers and Miners, Bangalore.

* * *

Mr. R. B. Cornwell rejoined the Staff on June 15th on his return from military duty in East Africa, Mesopotamia, and Persia, where he saw active service with the 61st and 94th Pioneers.

* * *

We offer our congratulations to Mr. E. M. Crothers (Instructor, Madras Forest College, on privilege leave) on his promotion *sub-pro-tem* to the Class of Extra Deputy Conservators

* * *

The attention of students is invited to "Popular Science Jottings" for July 29th, 1919 containing an illustrated article on Swimming. The number has been added to the Students' Library.

* * *

A copy of the Administration report on the Chenchus is placed in the Students' Library. The report is of exceptional interest and all students are advised to read it. We also commend to the notice of students "Notes on Forest Policy and Forest Management" by F. A. Lodge C. I. E.

* * *

Students' Flower gardens have now been laid out to the South of the Hostels—the old gardens to the North of the Hostels have been handed over to the students for the growing of vegetables.

Servants' gardens have been laid out to the south and east of the Servants' lines— with as a result a keen competition among servants to obtain permission to live in the lines.

* * *

Mr. S. Doraisamier has been promoted from the post of head clerk, to that of Manager (Rs. 60—2—80) of the Principal's Office.

* * *

T. M. Doraisami Pillai has been appointed Assistant Editor.

* * *

G. Appa Rao becomes a member of the House Committee under Principal's Standing Order VII (2).

* * *

On the recommendation of the Vice-President, C. S. Ganapathi (Coorg) is awarded his colours for Hockey and is appointed Vice-Captain.

* * *

K. Appayya is Captain of Hockey, L. Jurianz of foot ball, V. Krishna Rao of Cricket, and M. P. Subbayya of Tennis.

The other "colours" in residence are M. B. Subbayya (Hockey), V. Narayanasami Ayyar (foot-ball) Abdul Rahim Khan (foot-ball) J. A. Muliyil (athletics).

* * *

M. R. Ry. Srinivasagam Pillai (1915—17) has presented the College with one peacock. The principal would be very glad to receive more of these or other birds.

* * *

The receipt of 16 partridges from V. Ranga Rao, Dy. Ranger, Satyamangalam, and one dozen partridges from Mr. A. B. Fenn (1916-18 Dn.) are acknowledged with thanks.

* * *

We regret to announce the death from Influenza of Junior Student D. C. P. Wijeyaratne on the 19th August at the Government Hospital, Coimbatore. The Student became ill on the 8th August; he was under the treatment of the College Medical Officer until the 14th idem when he was removed to the Government Hospital. Up to the 16th inst. he was doing well, but subsequently his illness assumed a grave turn and owing to complications that ensued he was unable to rally.

The sympathies of the College are offered to his bereaved relatives.

* * *

We regret to have to announce the death from Influenza in Tinnevelly on 31st July of Mr. V. Subrahmanya Ayyar M. A., F. L. S., Extra. Dy. Conservator of Forests.

Mr. Subrahmanya Ayyar had a distinguished career in the Dept. For some years he was Zoologist at the Forest Research Institute at Dehra Dun., where he had previously graduated with Honours. He subsequently joined the original staff of the Madras Forest College, and

Instead of his original subscription of Rs. 25/-
Senior Student S. Nagalingam Pillai has
generously presented his War Bond of Rs. 100/-
to the club Fund. He thereby becomes a
patron.

only quitted his instructorship to take up the important post of Conservator in Travancore State.

We offer our sympathetic condolences to his bereaved widow and family.

## Miscellanea.

### Extract from the speech of the inspector General of forests at the Distribution of prizes on 26th March 1919, at Dehra Dun.

"The Government of India have recently decided to place no limit to the recruitment of the Provincial Seavice from the Ranger staft, but to leave the proportion of the vacancies to be filled by such promtion to the discretion of local Governments.

Again the Reforms Scheme will almost certainly result in reserving some proportion of the vacancies in the Imperial branch of the service- It is possible, therefore that in the years to come some of you will be in positions of great responsibility carrying considerably higher salaries than you had any hope of obtaining when you eommenced your training. I want to try and impress on you that the chance of your reaching these positions depends entirely on your own efforts. Promotion from the Ranger staff to the Provincial Service, and from the latter to the Imperial branch, will not go by seniority, but by selection and your selection for any of the higher appaintments open to you will depend far more on your proving your worth by the work you do in the forest charges of your provinces than on the position you now hold in your class lists."

* * *

A comparison of the Gazetted Officers lists of July 1882, July 1892, and April 1919 affords several interesting items of information.

In 1882 the Department consisted of 1 Conservator on Rs. 1,000 ( Headquarters Ootacamund ) 15 Deputy Conservators ( All Europeans) on Rs. 250.—700. no Assistant Conservators, but 7 Sub-Assistant-Conservators on Rs. 150—200.

The total strength of Rangers was 33. Ten years later there were 3 Conservators on Rs. 1,100, — Rs. 1,350, Rs. 1,600, 24 Deputy Conservators (including 5 posts vacant) on Rs. 550—900, and 10 Assistant Conservators (including one vacancy): all the above Officers were Europeans including 2 vacancies there were 11 Extra Assistant Conservators on Rs. 200—350. and 3 Sub-Assistant-Conservators on Rs. 150.

In April of this year the strength of the Department was as follows:—

4 Conservators on Rs. 1,500 – Rs. 1900, 28 Deputy and Assistant Conservators (2 vacancies) on Rs. 380 — Rs. 1,250; 4 Special Forest Officers.

1 Forest Engineer, 8 Extra Deputy Conservators on Rs 650. to Rs. 800 and 34 Extra Assistant Conservators (One vacancy) on Rs. 250 to Rs. 550 also 8 Extra Assistant Conservators probationers: and one special Veterinary Inspector.

A very large increase in the grades of Assistant Conservators, Extra Assistant Conservators, and Rangers has recently been sanctioned.

By the time Officers to fill the vacancies have been trained, the service as represented in Madras will be adequately equipped in point of numbers and salary, and under the Chief Conservator it may be anticipated in these circumstances that the professional, financial. and administrative progress will be at a rate undreamed of 25 years ago.

* * *

### *Means to discover watering of milk*

By means of two simple tests an authority asserts that it is possible to determine with a reasonable degree of accuracy the quality of milk. A qualitative test to show whether the milk contains water or not is made in the following manner. Take a perfectly clean steel hatpin and immerse it point down into the milk. If on withdrawing it a film of milk covers the same, there is no free water present. On the other hand the presence of water in small quantities will prevent the milk adhering to the pin.

* * *

The "Scientific American" states that a cube of gold with each dimension 43.8 feet would represent the estimated total of the World's supply.

The World's National Debts. amount to many times this quantity.

* * *

### *From, "American Forestry" April 1919 :—*

Rs. 1920,000,000 is the general estimate of the war losses and loss in reproduction value of the destroyed forests of France. Some

1696000,000 c.f. of timber have been felled in France duing the war. In addition Military operations have destroyed 254,400,000 c.f. while the Germans confiscated 296,800,000 c.f. It will take France over 100 years to fully recover from these forest losses, as the productive capacity of the forests has been reduced by 42,400,000 c.f. per annum over a very long period.

* * *

8% of the whole area of Reserved Forests, unclassed state Forests and Protected Forests in India and Burma is situated in the Madras Presidency, where 16% of the cadre of the Imperial Forest Service is employed. Madras is responsible for 12½% of the total forest revenue, 15% of the expenditure and 9% of the surplus; 10% of the outturn of timber and fuel; 15% of the cattle grazed; 35% of the area under regular plantations and 30% of the offences reported. 21% of the total expenditure on communications and buildings is incurred in Madras.

Since 1892 the surplus of revenue over expenditure in Madras has increased 700%.

R. D. R.

* * *

The Government Entomologist writes:— "The scale insect attacking the trees on the Forest College Estate is one which is very common on Babul and sometimes capable of doing a lot of damage.

It is preyed upon by the caterpillar of a noctuid moth "Eublemma" sp.

The name of the scale is Anomalococcus indicus, Green, a recently described species.

Apart from this nothing is known of its life history."

* * *

### *Sub-family Asterolecaninæ. Anomalococcus Indicus sp. new. Green.*

This is a serious specific pest of Acacia arabica (Babul) in the Coimbatore District The female scales are pale white in colour and spherical in shape. Young trees suffer badly from this pest and badly infested trees show the white scales in numbers on every portion of its stem, branches and shoots. A moth '*Eublemma Scitula*' is found predacious on the scale and among the scales on the branches can be found the cocoons of this caterpillar which appear as dark brown spherical shell-like objects bigger than the scales. Large colonies of the black ant *Camponotus Compressus* are found nesting at the foot of the trees and visiting the infested branches frequently. The insect is a species new to Science.

T. V. Ramakrishna Ayyar,
*Ag. Government Entomologist.*
Agricultural College,
Coimbatore.

(Extract from the Journal of the Bombay Natural History Society.
Volume XXVI, No. 2.)

* * *

### *The Electro-magnet.*

One truckful of swarf can be emptied in 7 minutes by a crane and electro-magnet with one man in charge; the time formerly employed for this was 5 hours, four men being required. Therefore one man, aided by the machine, can do in 7 minues what it would formerly have taken him 20 hours to do by hand.

According to Mr. H. A. Mears the gross economy of a crane and magnet as compared with the crane alone is as follows:— When loading locomotive tyres, work which a crane alone performs in 5 hours can, with the addition of the electro-magnet, be performed in 4 hours; when loading heavy castings, the crane with the electro-magnet performs in 3 hours work which the crane alone takes 20 hours to do.

* * *

At the beginning of April a small parcel of 1″ teak boards was sold in London at £ 95 per ton; equivalent, at the then rate of exchange, to Rs. 1253 per ton, or Rs. 25 per c.f.

* * *

### *Orchards made with high explosives.*

The vigorous growth of wild plants about shell-holes is attributed partly to the fissuring of the soil by the shell-fire and partly to the nitrogenous substances introduced. In a proposal to the French Academy it has been suggested that an ideal orchard soil could be produced by breaking up the rough surface with dynamite in such a way that fertilising material would be driven into the soil.

(POPULAR SCIENCE SIFTINGS.)

May 13th 1919.

* * *

## *Homing pigeons for Forest Fire protection.*

The State of Minnesota and the Canadian Government have adopted the system of Homing Pigeon Communication devised by Philip E. Edelman, E. E. for Forest Fire protection. This system provides reliable communication under conditions impossible to wire and wireless methods in wild countries. In a given area, a home nest is established at head quarters. The men in going on patrol carry two birds in a special carrier on their back, or kit, or in their canoe. If emergency arises they can instantly call for help by releasing one bird with message, and 10 minutes later, the second bird with check message to insure delivery. The weight to be carried is thus less than any electrical or radio apparatus. The birds fly directly to headquarters to which they have been trained, at about 50 miles per hour, whereas in impassable areas, a man runner might take two days for the same distance. The birds are well suited to the work and temperatures existing in large forest areas in winter as well as summer and are 98 per cent reliable.

(SCIENTIFIC AMERICAN)
May 3rd 1919.

* * *

## *Dynamite to grow fruit.*

A French Horticultural authority has laid before the Academy a paper making claim that dynamite is an important factor in aiding the fertility of orchard soils, "due partly to the fissurisation of the soil and partly to the impregnation of the soil with nitrogenous subjects." He makes mention of the fact that the dynamite is to be used "in conjunction with a suitable amount of fertiliser in a container surrounding the explosive in such a way that the force of explosion would drive the former into the fissures produced by the explosion." The very fact that Dynamite contains two of the most important and active fertilising agents, to wit, nitrate and sulphur, makes it unnecessary, Mr. J. H. Willman has stated in the 'Scientific American,' to go any further in aiding the fertilisation by blasting, than to just use the dynamite alone.

(POPULAR SCIENCE SIFTINGS.)

June 10th 1919.

* * *

## *Plants and Coloured Lights.*

### GREEN SEEMS FATAL.

To test the effect of light of different colours upon plants, Dr. Miramond de Laroquette has built at Algiers hot houses of blue, green, yellow, red and white glass, and in these he grew many kinds of plants from tiny moulds and mosses to lentils and laurels. In all the coloured lights, he states in a recent paper, the plants grow more fragile than in the white light, with long thin stems and pale colour. Yellow light affects them least, blue and red about equally, but with differences according to the plants, and green always kills them after a short time.

Under blue light the growth is at first scarcely more rapid than under the white; then the stalks and petioles suddenly lengthen abnormally.

Under the green, on the contrary, the growth is at first more rapid than under the white, but soon ceases and the plant fades and dies.

Under the yellow and red the growth is excessive, and continues so. The plant seems more luxuriant, but the exaggerated length of the stems and petioles is counter-balanced by their slenderness. The total weight is less than normal under the red, but slightly greater under the yellow. The size and thickness of the leaves is less under all colours, but especially under green.

The development of the roots corresponds exactly to the degree of vitality of the plant.

Plants flower and seed under blue, yellow and red light, but always tardily and less abundantly than in white light. In green lights plants do not flower and consequently produce no seed. No modification is noticed in the colour of the flowers.

Wheat grown in the white hothouses had full grains containing much starch. That in the yellow had only half as numerous and half as large. In the blue and red there were only a few grains and these had scarcely any starch.

Plants that under white light had short, thick, stiff stalks growing straight upward, had under coloured light, especially under blue and red, long, thin soft stalks that fell over and dragged on the ground unless supported by trellises.

(Popular Science Siftings)

July 8th 1919.

* * *

## List of books presented to the Library by C. B. Dawson Esq. I. F. S.

1. Text book of the Disease of Trees.
2. Timber and how to know them.
3. Forestry in Southern India, by Morgan.
4. Director's report and Statement of Account for 31 of East Land Extension Gold mining.
5. Forest Law by Beaden Powell.
6. Lectures on Physiology of plants, by Julius Von Sachs.
7. Schlich's Manual Vol. 1 to 4. ... 4 copies.
8. Elementary Lessons in Physical Geography.
9. Biology of Armillaria Mucida.
10. Rabis and Ant-Rabic treatment in India.
11. Spineless cactus. ... ... 6 copies.

* * *

A pamphlet on spineless cactus has been added to the Library.

If the claims made by the publisher (The Garden Superintendent Theosophical Society adyar, Madras.) as to the nutritive value and ease of propagation can be made good in practice, the cultivation of this species should go a long way towards solving the problem of cattle fodder, and incidentally therefore of Forest protection.

### *Examples of unidiomatic and ungrammatical English taken from official correspondence.*

| *Wrong.* | *Right.* |
|---|---|
| 1. Petitioner *will be enquired.* ... | *Enquiries will be made of* petitioner<br>or<br>Petitioner *will be questioned.* |

| *Wrong.* | *Right.* |
|---|---|
| 2. I will *avail* of the leave. | I will *avail myself* of the leave. |
| 3. He *stole away* two cows. | He *stole* two cows. |
| 4. It *is not also* true. | *Neither is* it true. |
| 5. I will *dispose it off*. | I will *dispose of it*. |
| 6. He *robbed off* the property *of P. W. 1*. | He *robbed P.W.1. of* his property. |
| 7. They *enjoyed* the land for 2 years. | '*Occupied*' '*Cultivated*' *or* '*possessed*' |
| 8. The cost was *annas four*. | The cost was *four annas*. |
| 9. They *gave out* information | .... *gave or furnished*. |
| 10. The party *comprises of* four men | ... *is composed of* ... or *comprises*. |
| 11. He was absent *in* his house. | ... *from* ... |
| 12. In order to prevent him *to do*.. | ... ... *from doing*. |
| 13. They *necked him* out. | They *pushed him* out. |
| 14. It is *no wonder to see*. | It is *not to be wondered at* that |
| 15. They beat *with hands* and his turban *fell to ground*. | ... with *their* hands ... fell to *the* ground. |
| 16. *From* a very long time. | *For* a very long time, or *from* a very distant date. |
| 17. He *gives out* his name as | *Says* that his name is. |
| 18. They took to heels. | Took to *their* heels. |
| 19. A has been substituted *by* B... | B has been substituted for A.<br>A has been replaced by B. |
| 20. It *costed* two rupees. | It *cost* two rupees. |
| 21. He *was put up* in the choultry | 'lived' or 'lodged' or 'stayed.' |
| 22. He *has no other go* but to say | He *is compelled* to say.<br>He *cannot help* saying. |
| 23. He was *fisted* by accused. | 'was *struck* by' or 'accused struck him' |
| 24. He *sided* Ramayya. | He *took* Ramayya's *side*. |

| | *Wrong.* | *Right.* |
|---|---|---|
| 25. | He *tore off* the petition.<br>He *tore away* the petition. ... | He *tore up* the petition. |
| 26. | It was done *by me only.* ... | It *was I who did it.* |
| 27. | *Rupees five.* .. | *Five rupees.* |
| 28. | *Enough of water* ... | *Enough water.* |
| 29. | He is charged *for* having stolen | ... charged *with* having. |
| 30. | Promises *to stick up* to ... the work. | ... to stick to ...<br>or better ... attend to ... |
| 31. | There is *no objection* ... *for his* being appointed. | .... *no objection to* ... |
| 32. | Gave gold jewels *of* two tolas... | ... weighing two tolas. |
| 33. | Accused was *smelling* arrack...<br>The rifle *smells* powder ... | ... *smelling of*<br>... *smells of* |
| 34. | He had *full of* work. ... | ... *much* work ... |
| 35. | Rs. 5 *was reduced* from the ... demand. | ... *was deducted* from<br>or 'the demand was reduced by'... |
| 36. | He *requests for* an interview ... | *requests* an interview. |
| 37. | He *bears good character.* ... | His *character* (*or reputation*) *is good.* |

## List of Books received for the General Library for the Quarter ending 30th June 1919.

1. The Kiln drying of Lumber by E. H. D. Tiemann.
2. The Graphic Souvenir of the German Navy's surrounder.
3. Indian Forest Records Vol. vii. part 1. Preliminary note on the seasoning of some Indian timbers by natural methods, R. S. Pearson I. F. S.

4. Report on Public Instruction in the Madras Presidency for 1917—18. Volumes 1 and 2.
5. Report and working scheme of the Nilambur teak plantations.
6. Indian Industrial Commission. Minutes of Evidence 16—18. Vol. VI. 1918.
7. Economic studies Vol. I. Some South Indian villages.
8. Madras Timbers 1919 by A. W. Lushington C. I. E.
9. Indian Forester Volumes 2 and 3 (one bound book.)
10. Working plan for the Ghat forests of Coorg.
11. Note on a tour of inspection in the Coorg forests by G. S. Hart C. I. E. 1919.
12. Forestry and Lumbering in the United States of America.
13. Administration report of the Andamans. **1917—18.**
14. The Indian Evidence Act by Ratanlal Ranchhoddas B. A.
15. Indian Penal Code. 8th edition by Ratanlal Dhiraglal.
16. Outline of Medical Jurisprudence for India.
17. Code of Criminal Proceedure.
18. Chitaker's Peerage, Baronage, Knightage and Companionage.
19. International review of the Science and practice of Agriculture,
20. Logging by Ralph Clement Bryant.
21. Report of the Council and Auditors of the Zoological Society of London.
22. Proceedings of the 'Agri Horticultural Society of Madras. (October to December 18).
23. Burma Forest School Director's Standing Orders. Parts 1 and 2.
24. Madras Medical Register for 1918.
25. Guide book for investors in Government Security.
26. Summary of the report by F. A. Leete Conservator of Forests on his visit to Canada, the United States and England.

## Contributions to the Gass Museum.

| Serial No. | Contribution. | Contributor. |
|---|---|---|
| 1 | Seeds of Garcinia indica, and sample of butter manufactured therefrom. | M. R. Ry. C. Karunakara Menon, Range Officer, Sankaranarayana range. |
| 2 | Five bark samples. | M. R. Ry. J. Sadasiva Ayyar Avl. B. A., District Forest Officer, N. Mangalore. |
| 3 | Crude lac from:<br>(a) Butea superba.<br>(b) Schleichera trijuga. | Mr. C. S. King, R. O. Mujjagoda Range. |
| 4 | A long panel of Wrightia tinctoria. | Mr. A. B. Fenu, Range Officer, Talamalai. |
| 5 | Six bark samples. | Do. |
| 6 | A Pterocarpus Marsupium seed with *two* radicles emerging out of it. | Mr. R. B. Salisbury, Range Officer, Instructor V. T. S. Southern Circle. |
| 7 | Fourteen sample barks. | M. R. Ry. A. R. Narasimha Ayyangar Avl. D. F. O. N. Mangalore. |
| 8 | Seven sample barks. | M. R. Ry. A. Rama Hebber, R. O. Bandar Range. |
| 9 | Three pieces of Red Sanders bark. | M. R. Ry. S. Ramachandra Ayyar, R. O. Cuddapah. |

| Serial No. | Contribution. | Contributor. |
|---|---|---|
| 10 | About two hundred botanical specimens. | Sayyid Abdul Qadir Sahib Bahadur E. A. C. |
| 11 | Photograph of winners of Marathon race 1919. | Do. |
| 12 | One live dung-beetle. | Mr. R. B. Salisbury Instructor V. T. S. Southern Circle. |
| 13 | Two short panels of Red Sanders. | M. R. Ry. S. Chinnadorai Pillai, R. O. Balapalle. |
| 14 | (a) Two spoons made of Carissa carandas. | Do. |
|  | (b) Two spoons do. Wrightia tinctoria. | Do. |
| 15 | One long, and one short panel of :-<br>(a) Vitex altissima.<br>(b) Veteria indica. | Range Officer Kasargode Range. |
| 16 | Two short panels. | M. R. Ry. L. Govindakrishnier' R. O. Mamurghat. |
| 17 | Eight bark samples. | M. R. Ry. E. K. Krishnan Avl. D. F. O. N. Vellore. |
| 18 | One Bison head. | Mr. L. J. Taylor, R. O. Santavasal. |
| 19 | Twelve bark samples. | M. R. Ry. C. Vasu, R. O. Begur Range. |

| Serial No. | Contribution. | Contributor. |
|---|---|---|
| 20 | Sixteen bark samples | M. R. Ry. Ramasamier R. O. Bargur Range. |
| 21 | Two " " | M. R. Ry. Y. P. Lakshmayya, R. O. Nandyal. |
| 22 | Root of Withanea somnifera. | M. R. Ry. K. Ramasamier, Overseer, M. F. C. |
| 23 | One short panel of Red Sanders. | M. R. Ry. M. R. Sundaram Ayyar Avl. D. F. O. N. Cuddapah. |
| 24 | Five bark samples. | Mr. V. T. Staggs, R. O. Bezwada Range. |

## Advertisement.

The following numbers of the 'Indian Forester' are required for the *Students*' Library, The Principal will be glad to receive any that officers can spare:—

1. Volume 1, 2 and 3 for 1875—76, 1876—77, and 1877—78.
2. Volume 6 for 1880—81.
3. Volume 13 for 1887—February Number.
4. Volume 14 for 1888—Junuary, February, March, Arpil and December numbers.
5. Volume 15, 16, for 1889, and 1890.
6. Volume 17 for 1891—August, September, October and November numbers.

7. Volume 18 for 1892.

8. Volume 19 for 1893—February number.

9. Volume 20 for 1894—January, February, March, July and August numbers.

10. Volume 21 for 1895.

11. Volume 24 for 1898—March and April numbers.

12. Volume 25 for 1899-April, May, June and August to Deeember numbers.

13. Volume 26 for 1900—August nnmber.

14. Volume 34 for the year 1908—July number.

15. Volume 36 for the year 1910—August number.

16. Volume 38 for the year 1912—January, March, October and December Nos.

17. Volume 39 for the year 1913-January, April, September and October Nos.

18. Volume 40 for the year 1914—June numbers.

19. Volume 41 for the year 1915—April and September numbers

20. Volume 42 for the year 1916—May, June, November and December numbers.

21. Volume 43 for the year 1917—January, February, April, November and December numbers.

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Coimbatore.

F. L. C. Cowley Brown,
*Principal.*

## Gazette Notifications

6th May 1919.

Mr. C. D. McCarthy, Conservator of Forests, granted combined privilege leave and furlough for two years with effect from date of relief.

Mr. Stephen Cox, Conservator of forests, Northern Circle, to be Chief Conservator of Forests from 1st June 1919.

Mr. Charles Mahony, E. A. C. of Forests, on probation transferred from West Cuddapah Dt. to work under the orders of D. F. O., South Cuddapah Dt., with reference to revision of Red Sanders working plan.

M. R. Ry. K. G. Sundara Raja Rao Ag. *Sub-Protem* Ranger VI grade posted to the charge of Nellore Range will join and work under the R. O. Nellore until he takes over charge.

Mir Abdul Hussain Kirmani Sahib B. A. reinstated as R. O IV grade is posted to Anantapur Dt. on special duty-to work under the orders of D. F. O. till he takes charge of Tadpatri Range.

The resignation by M. R. Ry. R. Krishnaswami Ayyar Pro. R. O. is accepted from date of relief.

M. R. Ry. N. C. Mahadevan Pillai R. O. IV grade granted sick leave on half pay on medical certificate for 4 months from 7—4—19 and posted to the charge of Bukkapatnam Range, Ananthapur Dt. on return from leave.

M. R. Ry. T. Paramasivam Pillai R. O. VI grade granted privilege leave for 5 weeks from 25—5—1919 and is posted on return from leave to the charge of Rajampet Range.

Mr. I John Pro. R. O. VI grade posted to charge of Chitvel Range.

13TH MAY 1919.

Mr. T. Clear Dy. Conservator of Forests combined privilege leave and furlough for one year from or after 1—7—19.

M. R. Ry. T. V. Venkateswara Ayyar Avergal Pro. E. A. C. granted privilege leave for one month and four days.

The following postings of students returning from the M. F. College and transfers are ordered subject to their obtaining certificates.

1. T. G. Sitarama Mudali to the charge of Ganganapalli Range, West Cuddapah Dt.
2. C. N. Narasimha Achari to the charge of Vanpalli Range, West Cuddapah Dt.
3. N. C. Mahadevan to Guntur Dt. to work under the orders of D. F. O. in connexion with the preparation of Working Plan in Venikonda Range.
4. K. Purushothama Rao to the charge of Bellary Range Bellary Dt.
5. M. R. Ry. V. Jagannatham Pillai Ag. R. O. VI grade transferred to South Cuddapah Dt. to work under the orders of D. F. O.
6. P. K. Kuttappan Pillai is reverted to *Sub-protem* Dy. Ranger I grade and transferred to South Cuddapah.

27TH MAY 1919.

Mr. S. Cox, Conservator of Forests, III grade, to act as Conservator of Forests, II grade, from 8th February 1919 up to and including 31st May 1919, vice Mr. H. B. Bryant on furlough.

Mr. Henry Tireman, Dy. Conservator of Forests, to act as Conservator of Forests, III grade, and to be incharge of Western Circle during the absence of Mr. C. D. McCarthy on leave or until further orders.

M. R. Ry. J. Sadasiva Ayyar Avergal, D. F. O. North Mangalore, to be D. F. O., South mangalore.

M. R. Ry. A. R. Narasimha Ayyangar Avergal, E. A. C. of Forests, to be D. F. O. North Mangalore.

Mr. A. B. Jackson, Dy. Conservator of Forests, to act as Conservator of Forests, III grade, and to be in charge of the Southern Circle during the absence of Mr. H. A. Latham on leave or until further orders.

M. R. Ry. S. V. Devadasan Avergal, D. F. O., Chingleput, to be D. F. O., Madura, and until relief by Mr. D. T. Barry, to be in additional charge of Tinnevelly cum Ramnad.

M. R. Ry. M. C. Chandy Avergal E. A. C. to be D. F. O., Chingleput.

Mr. A. M. C. Littlewood, E. D. C., *Sub-protem* on return from leave to work under the D. F. O., Chittoor.

M. R. Ry. K. M. Gopala Achari R. O., IV grade *Sub-protem* on return from leave is posted to the charge of Sriperumbudur Range, Chingleput Dt.

Mr. R. E. Lemos R. O., III grade, on return from leave is posted to Tinnevelly Dt. on special duty in connexion with road works in the Dt.

3RD JUNE 1919.

Mr. A. M. C. Littlewood E. D. C. to be D. F. O., Chittoor during the absence of Mr. C. C. Wilson on leave or until further orders.

Mr. T. A. Whitehead, D. F. O., West Kurnool, to be in charge of South Kurnool in addition to his own duties.

M. R. Ry. A. Hanumantha Rao Avergal is confirmed as E. A. C. with effect from 25—1—1917.

Consequent on the return of Mr. C. H. Ashe, Ranger, V grade, from military duty the following arrangements are made :—

(1) M.R.Ry.K. Jayaraman to continue to act as R.O. VIgrade *Sub-protem* Vice K. Syed Edulla Sahib retired.

(2) B. T. Sitaraman Ag. R. O. VI grade tobe Temporary Ranger VI grade vice Mr. B. R. Salisbury appointed as Instructor V. T. School.

(3) Mr. S. F. Lobo temparary R. O. VI grade to revert as Dy. Ranger II grade but to continue to be in charge of Pappireddipatt Range.

10 June 1919.

M. R. Ry. Aaron Appadurai Pillai Avergal, Dy. Collector VI grade to be Personal Assistant to the chief Conservator of Forests.

Mr. E. M. Crothers, Instructor, M. F. C. Coimbatore is granted privilege leave for three months from or after the 15th August 1919.

Mr. C. M. Hodgson Dy. Conservator of Forests, to act as Conservator of Forests, III grade and to be in charge of the Northern circle from or after the 1st June.

P. K. Kuttappan Pillai Pro. Dy. Ranger I grade to act as Ranger, VI grade and posted to the charge of Vempalli Range vice M. R. Ry. R. Krishnaswami Ayyar Pro Ranger resigned.

V. S. Rangaswami Nayakar, Dy. Ranger, I grade to act as Ranger VI grade and posted to the Charge of Chitvel range vice M. R. Ry. T. Paramasiwam Pillai granted leave.

M. Rama Rao Kini, Ranger VI grade on closing of V. T. School is transfered to central Coimbatore Division to take charge of Erode Range.

17TH JUNE 1919.

Mr. C. B. Dawson Dy. Conservator of Forests, combined privilege leave and furlough for 2 years from or after the 1st August 1919.

Mr. H. F. A. Wood, Conservator of Forests, Central Circle, combined privilege leave and furlough for one year and 2 months from date of relief.

Mr. F. R. Madan, D. F. O., Nellore, privilege leave for two months.

Mr. A. B. Jackson, Ag. Conservator of Forests in charge of the Southern Circle, on relief by Mr. H. A. Latham, to be in charge of the Central Circle, during the absence of Mr H. F. A. Wood on leave or until further orders.

24TH JUNE 1919.

Mr. W. A. Woodhouse Adolphus, E. A. C, on return from leave to be D. F. O., Kollegal.

Mr. H. W. A. Goudoin, E. A. C., on return from Military duty to be D. F. O. South Kurnool, until the return of Mr. G. W. Thompson from leave.

Mr. J. H. Longrigg, D. F. O., the Nilgiris, to be Instructor, Forest College, Coimbatore, vice Mr, C. B. Dawson granted leave or until further orders. Mr. Longrigg will be on special duty from the date of relief from his present appointment until the date on which Mr. Dawson goes on leave.

Mr. B. F. Rigold, Dy. Conservator of Forests, on return from leave, to be D. F. O., the Nilgiris.

M. R. Ry. K. A. Chengappa Avergal, E. A. C. on return from leave to be. D. F. O., West Vellore, and Dy. Collector in the North Arcot District.

M. R. Ry. V. N. Seshagiri Rao Averal, E.A.C., Nellore, to act as D. F. O Nellore, during the absence of Mr F. R. Madan on leave or until further orders.

Mr. A. M. C. Littlewood, *Sub-protem* E. D. C., to be permanent E D. C. with effect from the 1st April 1919.

M. R Ry. Rao Sahib, K. R. Venkataramana Ayyar Avergal, D. F. O., South Vellore, to be in charge of the West Vellore division, and to be Dy. Collector in the North Arcot Dt. in addition to his own duties from the 23rd April 1919 until relief by M. R. Ry. K. A. Chengappa Avergal or until further orders (This cancells notification in the Fort St. George Gazette dated 25—3—1919).

M. R. Ry. K. Jayaraman, *Sub-protem* R. O. VI Grade, will be considered, to have been on privilege leave from 23—4—1919 to 3—5—1919 (inclusive) with permission to prefix the Easter holidays from 18th to 22nd April 1919. M. R. Ry. K. Parthasarathy Ayyangar, Ag. R. O. VI Grade, is transferred from South Vellore to West Vellore division for charge of Alangayam Range.

1st July 1919.

1. Mr. I. John, Pro. Ranger VI Grade, or relief by M. R. Ry. I. Paramaswami Pillai, R. O. is posted to the Charge of Bellary range.

2. K. Purushothama Rao on return from M. F. College, transferred to the charge of Chitvel range.

3. V. S. Rangaswami Nayaker, Ag, Ranger VI Grade in charge of Chitvel Range, will continue to hold charge until relieved by No. 2. M. R. Ry. S. G. Venkataramanan (M. R. H.) Pro. Ranger VI Grade, is confirmed in that appoinment.

8th July 1919.

The services of Mr. C. J, P. Van Halften, Pro E. A. C. are placed at the disposal of the Superintendent of Post Blair, with effect from the afternoon of the 30th May 1919.

M. R. Ry. T. N. Seshagiri Rao, on leave, is permitted to return to duty before the expiry of his leave and to hold charge of Nellore Range.

The unexpired portion of the leave is cancelled.

M. R. Ry. K. G. Sundara Raja Rao, Ag. Ranger VI Grade is transferred to Chittoor Dt. to work under the orders of the D. F. O.

M. R. Ry. C. Rajagopal Nayudu, R. O. II grade is granted combined privilege leave and furlough for two years.

Mr. W. G. Dyson, Assistant conservator on probation, North Coimbatore division, is transfered to South Coimbatore division to do duty under the D. F. O.

15TH JULY 1919.

M. R. Ry. V. Narayana Ayyar Avergal, *Sub protem* E. A. C., is granted privilege leave for 2 months.

Muhammed Habib-ul-lah Sahib Bahadur, E. A. C., to be D. F. O., North Coimbatore, with effect from the date on which he took charge of the division from Mr. Wimbush and until further orders.

(1) M. R. Ry. S. Ramachandra Ayyar R. O. IV grade is granted privilege leave for one month.

(2) M. R. Ry S. Sankara Alwa, Pro. temporary ranger is posted to the charge of Cuddapah range in addition to his own, vice No. 1 on leave.

Mr. H. Mac Bhide Ranger V grade is granted privilege leave for three months.

The posting of C. N. Narasimha Achari to the charge of Vempalle Range, is cancelled.

M. R. Ry. M. Subroil Nayudu, R. O. III grade on return from leave is posted to the charge of Vempalle range.

M. R. Ry. A. Ranganayakalu Naidu, R. O. III grade, is on the close of the V. T. School, posted to the charge of Chitvel range.

M. R. Ry. S. Chidambara Ayyar, Ranger IV grade, *Sub-protem* is on the close of the V. T. School, transfered to South Cuddapha Dt. to work under the orders of D. F. O. to supervise the standard marking in the improvement felling series.

Md. Asad-ul-lah Ghatala Sahib, on expiry of leave, to Morricheruvu range.

M. R. Ry. T. Srinivasa Achari on Expiry of leave to Markapur range, Kurnool West Dt.

M. R. Ry. S. M. Srinivasagam Pillai, R. O., VI grade is posted to the charge of Pappiredipatti range.

Mr. R. B. Salisbury, R. O. III grade, is posted to North Salem Dt. for special duty relating to sandalwood work.

22nd July 1919.

K. Purushothama Rao, is, on relief posted to Anantapur Dt., to the charge of Madakasira Range.

M R. Ry. D. C. Bhide is, transferred to charge of Kalyandrug Range.

M. R. Ry. B. V. Vydeeswara Ayyar is, on relief, posted to Nellore, Dt. to work under the orders of D. F. O. Nellore.

M. R. Ry. A. Ranganayakulu Naidu, R. O., is posted to the charge of Rajampet Range.

M. R. Ry. T. M. Paramasivam Pillai, R. O., is transferred to the charge of Chitvel Range.

M. R. Ry. T. Subbrayulu Nayudu, R. O. Madanapalle Range, is granted privilege leave for one month and seven days.

M. R. Ry. K. G. Sundara Raja Rao, Ag. R. O. VI grade is posted to the charge of Madanapalle Range.

29th July 1919,

Mr. H. W. A. Gaudoin, E. A. C. on return from Military duty to be D. F. O. Lower Godavari.

Pending arrival of Mr. B. F. Rigold or until further orders Mr. J. F. Bryant I. C. S., Collector of the Nilgiris to carry on the duties of the D. F. O. of the Nilgiris in addition to his own duties.

Mr. R. B. Cornwell. E. A. C. to be Instructor in the Forest College, Coimbatore, during the absence of Mr. E. M. Crothers.

M. R. Ry. P. K. Kuttappan Pillai, Ag. R. O. is posted to the charge of Sriperumbudur Range.

M. R. Ry. V. D. Ramalingam Pillai, Ranger V Grade *Sub-protem*, is reduced to the bottom of the VI Grade with effect from 1st May 1919 the date of his suspension and that he be considered as on leave on loss of pay till 31st July 1919.

M. R. Ry. V. D. Ramaligam Pillay, R. O. on return from leave is posted to the charge of Horur Range.

M. R. Ry. K. S. Ramayya R. O. is transferrdd to North Malabar, to the charge of Chedleth Range.

M. R. Ry. B. Sambamoorti Ayyar, R. O. is transfered to North Mangalore Dt. to the charge of Coondapur Range.

M. R. Ry. R. Gurusawmi Ayyar, Ranger, I Grade is transferred to the Nilgiri's Dt. to the charge of Mudumalai Range.

5TH AUGUST 1919.

Mr. Stephen Cox, chief conservator of Forests, has been nominated to be an additional member of the Legislative council of the Governor of Fort Saint George.

Mr. Harloe Irwin, to be Forest Utilisation Officer.

Mr. G. C. Robinson, Assistant conservator of Forests, South Malabar has been declared by the Board to have passed Tamil Higher Standard prescribed for members of the I. C. S.

The following who came out of the M. F. C. with Higher standard certificates are appointed temporary Rangers, VI Grade on probation for one year.

(1) K. Purushothama Rao, South Cuddapah and Anantapur.
(2) C. N. Narasimha Achari, Chittoor.
(3) N. C. Mahadevan, Guntur.

The following temporary Rangers VI Grade, are confirmed.

(1) A. Vyasulu, Kudligi Range, Bellary district.
(2) A. Bhaviah, Chamala Range, Chittoor district.
(3) A. Muthu Krishnan, Porumamilla Range, N. Cuddapah Dt.

The following confirmations and promotions are ordered.

J. S. Rowland, to be Ranger, VI grade without prejudice to his acting appointment as R. O. IV grade.

A. B. Fenn and C. Vasu, to be Rangers, VI grade, from 1st July 1918.

P. Sankuni Menon, to be Dy. Ranger, 1 grade and to act as R. O. VI grade, South Mangalore Dvn. from 1st July 1919.

M. Gulab Singh, to be Dy. Ranger, I grade, and to act as R. O. VI grade, the Nilgiris (as Asst. R. O. Mudumalai) from 1st July 1919.

B. Coates, to be Dy. Ranger, II grade, and to act as Ranger VI grade, North Malabar, from 1st July 1919.

19TH AUGUST 1919.

M. R. Ry. L. S. Krishnan Avergal, Pro. E. A. C., privilege leave for 1 month and 14 days from or after 15—8—1919.

Mr. T. Clear, Dy. Conservator of Forests to be D. F. O, Tinnevelly *cum* Ramnad.

M. R. Ry. T. Subbarayulu Naidu, R. O extension of privilege leave for 1 month from 10—8—1919.

The combined leave granted to Md. Asadulla Ghatala Sahib, R. O. is extended by six months.

Abdul Khalak Sheriff, transferred to Kurnool East for charge of Morricheruvu Range and will act as Ranger VI grade from date of taking charge.

B. Gulam Dustagir Sahib, R. O, is granted extension of leave for 3 months.

M. R. Ry. K. R. Krishnan Nayar, R. O., The Nilgiris, is granted Extension of combined leave for 6 months.

**26TH AUGUST 1919.**

Mr. F. R. Madan, Dy. Conservator of Forests, extension of privilege leave up to 30th September 1919.

In the vacancy caused by the death of M. R. Ry. Panchapakesa Ayyar Avergal, E. D. C., Mr. H. W. A. Gaudoin, E. A. C. of Forests to be permanent E. D. C.

In the vacancy caused by the deputation on foreign service of M. R. Ry. V. Raman Menon Avargal, E. D. C., Mr. E. M. Crothers, E. A. C. to be E. D. C., *Sub-protem*

Mr. C. J. Van Halften, Pro. E. A. C. is appointed to the chage of Middle and North Andamans Forest Division, with effect from the 21st July 1919 and until further orders, during the absence of Mr. M. C. C. Boing, E. D. C. on special duty.

The one month's privilege leave granted to Ranger M. R. Ry. S. Ramachandra Ayyar, is extended up to 24th August 1919. The existing arrangement will continue.

M. R. Ry. K. G. Sundara Raja Rao, Ag. R. O. Sixth grade is granted privilege leave for one month, on relief by M. R. Ry. T. Subroilu Nayudu.

Mr. C. S. King, R, O. is granted privilege leave for 3 months with effect from date of relief.

M. R. Ry. R. Guruswami Ayyar, R. O is transfered to South Malabar division for special duty.

M. R. Ry. P. Govinda Menon Avargal Pro. E. A. C. (on leave) is transfered to Nilgri division to the charge of Mudumalai range. This cancels Ranger Guruswami Ayyar's posting to Mudumalai.

M R. Ry. K. S. Ramiah R. O. is granted privilege leave for one month on relief by Ranger T. Kondathu Goundan.

M. R. Ry. K. S. Ramiah, R. O is transferd to North Malabar to the charge of Begur range-on the expiry of his leave. This cancels his posting to Chedleth range.

M. R. Ry. C. Srinivasa Rao, R. O. is granted leave on private affiairs from 28th July to 11th August 1919.

M. R. Ry. M. Ambu, R. O. on working Plan duty is transfered to North Malabar division to charge of Chedleth range.

# THE MAGAZINE

OF THE

# *Madras Forest College*

Published Quarterly.

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